

THE FUTURE OF THE COLLEGES

Town v. country rift underlies fraught West Midlands vote

by David Hencke

The future of higher education in the West Midlands will be decided on Monday on the votes of a county education committee which is bitterly divided between "rural England" and "the towns" and is still squabbling over the Redcliffe-Maud recommendations to set up the authority two years ago.

At risk is either Britain's first proposal for an "open college" in a 14th century in Birmingham, near Birmingham or Hereford's only higher education institution, the 650 student college of education in the old county town. Local politicians are divided over the issue that the Conservative, Independent, Labour and Liberal groups on the council have split both ways.

This follows a Government decision to offer the divided county a choice between closure of either the Hereford college, as originally suggested by the Department of Education, or Shestone New College, with 850 students in north Worcestershire.

The Department has been faced with opposition from the Hereford college culminating in a deputation to the DES last month.

Local councillors and teachers see the closure of the college as a more step to demolish the town of all its facilities, following the closure of its county hall last year. Herefordshire, which has a declining population, has been described as "the wasteland ward of the West Midlands".

Closure for Shestone, however, will affect not only the future of the teacher training college but

also plans for an ambitious open college by combining Shestone with adjacent Bromsgrove College of Further Education.

The two colleges own nearly £4m of new buildings between them and the Hereford-Worcester authority has no money to fund the college of education if it ceases to offer high-level courses.

The result is that local councillors fear that £2m of new buildings—the latest extensions were completed last week—will be left to fall derelict after 1978.

Dr Dennis Brailsford, principal of Shestone New College and the likely choice for the principal of the new open college, says the college has a strong case for survival.

It offers a wide range of teacher training courses including teaching practice in rural schools, educa-

tional priority areas and areas like Smethwick, which have a high density of immigrants. It is also serving the West Midlands in areas of expanding population with new towns at Redditch and Telford.

The college has approval for a two-year Diploma of Higher Education from Birmingham University and is about to start talks with the Council for National Academic Awards on an in-service Bachelor of Education degree.

The most imaginative proposals are for an open access system of higher education designed to cater for the 16-19 year age group so that students on low level courses can progress to the DHE and from the college to take degree courses in universities and polytechnics.

Lecturers at Bromsgrove College of Further Education are very

keen "not to use the polytechnic but to offer sub-degree work which can attract local students into higher education."

Local industry, including Leyland and Lucas, also supports proposals since they offer a service offered by the college of further education supplying the requirements of both apprentices and trainee graduates.

The college has mounted a campaign among local council and Members of Parliament led by Mr Gerry Fowler, the former Minister of State for Higher Education, since the college provides practice for schools, a university constituency. It has been delivered to more than 20,000 homes in Bromsgrove and neighbouring villages.

Quality must not be sacrificed for the sake of student numbers—Dahrendorf

by Alan Cane

A clear warning that the Government may be sacrificing university quality for the sake of student numbers was given by Professor Ralf Dahrendorf, Director of the London School of Economics, last Saturday.

In a letter to *The Times*, he argued that the present round of economics in higher education was not merely a common effort between the universities and Government to get through a difficult stretch; it involved a redefinition of the place of the universities and of their relationship with Government.

Arguing from the economic choices set out by Lord Croomer-Hunt in his recent series of speeches, Professor Dahrendorf asked: "Might it not be argued that these statements imply a clear priority not only for economics (which, of course, are a sad need rather than a priority) but for achieving an undergraduate numbers target by hook or by crook?"

He went on: "Whatever one's views about expansion are, surely priorities in higher education must be essentially qualitative. If this fact is forgotten, one of the most distinguished university systems in the world may well lose its distinction."

On the same day, *The Times* published letters from Professor R. V. Jones, of Aberystwyth University and Professor Max Beloff, head of the

University College at Buckingham, which indicated that national daily newspapers are beginning to reflect the future of responsibility generated in higher education by Lord Croomer-Hunt's comments.

Professor Jones, arguing that the post-Robbins expansion has indeed lowered standards and that the degradation of the universities has been taken one step further by the threat of academic strike action, wrote: "The strike action is among the most dangerous that civilisation has ever invented, but it has now been sanctified to the point where crossing the picket line is regarded as a more heinous offence than deserting an altar. The indecent devotion to unwavering their countrymen to the dangers of the strike philosophy rather than joining in it."

And Professor Beloff, asserting that in the present circumstances UCB offers a viable alternative to a state system, says: "We can assure those school-leavers now placing at Buckingham and other places that they will be taught to the best of our ability, their papers marked and their results made public. Nor need they worry about the possibility of an interruption to their studies plus and other nonsense. A precise note more than the wit of the NUS should prove appeasing."

Professor Jones said that standards had demonstrably fallen. Students taking soft options in the arts were more likely to be at university and were taught by staff of poor quality who were not sure why they were there either.

"The result was a loss of balance between authority and freedom, culminating in events such as Stirling," *The Times* and *The Guardian*—two of the newspapers most widely read by students—have taken editorial lines towards the problems of expanding higher education more clearly.

The *Guardian* (May 26) argued that standards must drop as an extra 180,000 students enter higher education in 1980 while educational expenditure increases by only 1 per cent at best. It said: "It will be better to protect the numbers in the hope that although standards of accommodation and facilities will drop, teaching standards will be much preferable to cutting teaching standards."

*The Times* (May 17) warned that the universities were of sufficient dislocation to warrant, separate organization and separate and separate funding. "Who is more capable of increasing the multiplication of growth (the Robbins fallacy)." It argued that most student expansion to meet mass needs and social demands should take place outside the universities.

£750,000 cuts force poly to drop housing plans

by Sue Reid

Leicester Polytechnic's capital expenditure budget for the next academic year has been cut by more than £750,000. The economies will mean abandoning a £268,000 student housing programme already approved by the Department of Education and Science.

The capital budget programme, originally divided between £453,000 essential expenditure and £34,000 non-essential expenditure, makes up the total cut back figure agreed by Leicester County Council last week.

But the economies have ruled a storm of protest from the academic community at Leicester. Mr David Bethel, the polytechnic's director, said this week: "It must be those who decided on those massive cuts were unaware of the effects of their decision. To reduce the capital budget of a multi-million pound institution overnight clearly makes either economic or educational sense."

However, he emphasized: "We have not yet given up hope that, with greater knowledge of the facts of the case, the authority will feel more able to reverse their decision. The decision and the mode of its taking will certainly increase pressure for the polytechnic to be removed entirely from local authority control."

Mr Tom Burgess, president of the

polytechnic's students union, said he was deeply perturbed at the council decision. Concern had been expressed by the academic body and students.

He particularly criticized a housing programme cut back to be claimed, due to the cuts, by the local authority pooling but would mean a net saving to Leicester ratepayers of just £15,000.

"In a situation of economic emergency all possible economies must be made, but it would be to suppose a total cut in expenditure on a vital component in higher education can be contemplated without considerable long-term damage."

Mr Ken Taylor, Leicester County Council's first assistant director of education, claimed the authority's education committee had not backed the cuts. But he said the education committee was part of a wide range of financial cuts in many fields.

Defence for the cuts came from Mr Ray Hale, deputy county surveyor. He said that in line with Government directives Leicester County Council could maintain capital programmes only for the next year. Remuneration had to be made under Government pressure but there was nothing to say polytechnic expenditure would not be included in the future had been a "re-appearing" expenditure programme but would be looked at again.



University teachers' increase may total more than 40%

by David Dickson

The final scale agreed by the University teachers could resolve salary increases of about 45 per cent in October as a result of this week's award by the arbitration tribunal.

The tribunal's award represents an increase of between 20 and 23 per cent over salaries at October 1974, which already incorporated increases of four threshold payments over the basic scales agreed in May 1974.

In addition to the figures suggested by the tribunal, the new salaries will include a cost-of-living increase for the period October 1974 to 1976.

The exact size of the increase is still to be negotiated between the Association of University Teachers, the University Authorities Panel and the Department of Education and Science, but is expected to be in the region of 22 to 23 per cent.

Assuming a cost of living increase of 22 per cent, the salaries of university lecturers would increase in October from the current scale of £2,347-£5,125 (which includes threshold payments) to a scale of £3,389-£7,341.

The current scale includes the 11 threshold payments made between May and December, 1974, while the new scale would take such threshold payments into account.

The salary scale for senior lecturers would increase from £4,939-£6,205 to £7,006-£8,962, and the average salary of a university professor would increase from £7,466 to £10,835.

In their joint claim to the arbitration tribunal, the AUT and the UAA demanded an increase for university lecturers of between 29 and 36 per cent, to which cost of living increases would have been added.

The offer made by the DES represented a 4 per cent increase on the salaries recommended by the Arbitration Committee for grade A lecturers in further education, although applying the 17 points of the university teachers' scale as opposed to the 15 points of the further education scale.

This would have meant an increase for university lecturers, below the further education scale, for those at the top of the scale, and 23 per cent for those at the bottom.

by Laurie Sapper, general secretary, Association of University Teachers

Although the phrase "a chink of light at the end of the tunnel" is backdated, it does perhaps best describe the award that has just been made by the Arbitration Tribunal on the first leg of the university teachers' present salary negotiations.

If successful negotiations are concluded on the second part of the pay settlement promised by the Department of Education and Science (and that, of course, has yet to be negotiated) then we will have gone some way to putting right the mislead, anomalous, and unjust situation into which university teachers' pay was forced earlier in the year by a dramatic imposition of the social contract.

Since negotiations have been long and tortuous, extending over several months of unhelpful involvement, it might be worthwhile to briefly recount the events that have led to the first ever arbitration case on university teachers' pay.

When we settled for 7 per cent plus threshold payments (together with a 1 per cent increase for a variety of purposes) under the Government's statutory pay policy, we gave notice to the University Authorities Panel that we would want a complete review of university teachers' pay in the light of what had been happening in other sectors of employment.

We began this review last July and completed it during the autumn. At that time we estimated that

18 per cent would need to be added to the statutory increases which came into force on October 1, 1974, to give university teachers some measure of "catching-up".

Although not disagreeing with the amount claimed, the Secretary of State for Education and Science took the view that such an adjustment would be in breach of the 12 months rule in the social contract.

In spite of every bit of pressure the AUT could muster, the Secretary of State adamantly refused to move on this issue and indeed reiterated again and again in Parliament that he was sticking to his point of view—even to the extent of refusing to negotiate on any claim that sought to reopen the October 1974 settlement.

Finally, in order to break the deadlock the Secretary of State did agree to make a two-part offer to Committee A (the University Authorities' Panel) and the Association of University Teachers) in operation from October 1, 1975, which would (a) give university teachers a pay increase in the region of 10 per cent on the basis of the 12 months rule, and (b) add in this cost of living increase for the year 1974-75.

Negotiations took place on the first part of the offer—they broke down and hence the arbitration hearing. This increase now awarded will represent the basis on which a cost of living increase will be negotiated.

continued on page 28

Pessimism is still pervading atmosphere

from Alan Cane

Plans to withhold examination results at Manchester University were abandoned as soon as the arbitration panel's decision reached officials of the local branch of the AUT.

The prevailing mood of disquiet and pessimism here, however, will not be so easy to dispel. As basic planning for the 1977 to 1982 quinquennial gets under way, Manchester academics feel themselves to be under fire from a Government whose motives they distrust and in whose motives they have little confidence.

Mr Prentice is seen as the architect of the university's decline. "Why is he so much against the universities; does he have a reason for his animosity? Is he in a state of injured despair? Junior academics believe Mr Prentice's word is not to be trusted. Senior academics think he is an ignorant and reasonable man doing the bidding of a Cabinet irreversibly prejudiced against the universities."

Dr Brian Manning, senior lecturer in history and president of the local AUT branch, talks of a feeling that a general attack is being made on the universities. Dr John Bu-Lock, Reader in Chemistry, said there seemed to be a clear determination to bring the universities to heel by "people who are not prepared to admit we are doing a good job."

A colloquy commented: "You got used to your neighbours snoring at the apparent irrelevance of your work but it is too much when that is also the official line."

A conservation of knowledge, one of a university's chief functions, is in danger here. There is little money to maintain and improve book stocks in the library.

Time for research and for private scholarship is the big worry. Declining staff/student ratios, declining postgraduate student numbers, and unprejudiced teaching loads, are giving rise to widespread anxiety about the future of research. Frank Musgrove, sole professor of education in the department where two chairs have been "frozen" since 1972, continued on page 28

The THES

The average weekly circulation of *The Times Higher Education Supplement* in May was 21,753 copies compared with 19,553 to May, 1974—an increase of 2,100.

Cambridge faces £68,000 shortfall

Cambridge University's income is going to fall short of spending this year by over £68,000, according to a report from the Council of Senate to members of the university this week.

Looking to this 1975-6 academic year, the report forecast a surplus of just over £1,000 in the university accounts. However, last year's report made a projection for 1974/5 giving a surplus of nearly £3,500.

Scots' pay settled

Scottish further education teachers have accepted salary increases of about 20 per cent, in separate negotiations last week, the Educational Institute of Scotland reported. The settlement was agreed by local authorities, and the staff panel, representing teachers in central institutions, accepted figures from the Scottish Teachers Salaries Committee and the Scottish Education Department.

What staff cost Bristol

Spending on staff accounted for more than 70 per cent of Bristol's budget, said Dr A. W. Kerridge, the university's vice-chancellor, defending the "freezing" of new vacancies. If all such vacancies were released the university would have a £750,000 deficit.

Plan threatens to axe 9,600 more teacher training places

A new blow to the future of teacher training has come from the Government in a proposal to abolish either the James Rorty proposals on in-service training or the induction year for probationary teachers.

The proposal would mean the loss of up to 9,600 teacher training jobs and the reallocation of fees expressed by Mr Malcolm Lee, chairman of the Association of Teachers in Colleges and Departments of Education, that up to 45 colleges may be closed. Nearly 1,000 more college lecturers might lose their training places in Britain would fall from 88,500 to 87,500—or less than half the 174,000 places in 1972.

The Government proposals are understood to have been made by senior civil servants in informal talks with college representatives.

Warwick sit-in ends

The student sit-in at the University of Warwick arts centre ended last week, after students voted to end the occupation despite the fact that the demands for negotiations with the university had not been met. A rent strike now in its second term will continue.

Wolfson recognized

Wolfson College has been accorded formal recognition by Cambridge University and will now have full rights of presenting students for university degrees. Formerly University College, the foundation will become fully autonomous with the transfer of its assets from its trustees to the college fellows.

East Anglia freezes all new posts

The University of East Anglia is to freeze all new appointments, both teaching and non-teaching, in an attempt to have an expected loss of £400,000 next academic year, Dr Frank Thistlethwaite, the vice-chancellor, announced this week.

The university's grant for 1978/79 of £4,938,000 has been criticized by the vice-chancellor as "inadequate". The freeze, which will continue at least until September, will result in a reduction of the university's labour force of between four and five per cent.

Oxford University announced last week it was filling half of its vacant academic posts as a result of a £1.8m increase in its grant for 1975/76 to £15.7m.

AUT call rejected

Academic staff at Cambridge University have rejected the Association of University Teachers' call for its members not to release expansion until an arbitration tribunal has made a salary award to universities.

Most Oxford undergraduates are also expected to receive their results. The main results are not published until July and the pay claim is expected to be settled before then.

New part-time BA

A new part-time business degree course will be launched by the Polytechnic in September. The BA in Business Studies, valued by the Council for National Academic Awards, offers students a flexible choice of studying for the degree, can be completed in three, five or even eight years, and on one half day or evening or one whole day and evening. The course provides a broad base ground in business studies, allows a student to specialize in management, marketing or finance. Students can be admitted with the normal two A-level entry requirements. If the polytechnic is satisfied that they have the ability to study at degree level.

NEXT WEEK

Anthony Arblaster on radio and the Black Paper  
L. C. Knight on Shakespeare's Last Plays  
Bernice Martin on utopian sects  
John Erickhill on the national film school  
Alexandra Gunn on student health

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## University intervenes in college closure fight

by David Hencke

Dr Robert Hunter, vice-chancellor at Birmingham University, has intervened in the bitter struggle over proposals to close either Shennston New College, Birmingham, or Hereford College of Education.

His letter to the Hereford-Worcester authority was distributed to the 42 members of the councils education committee on Monday at the same time as a letter from the Department of Education and Science announced a one-year reprieve for the college that will be earmarked for closure by the authority.

The DES has offered the authority a choice of closure, and the authority is expected to make its decision on July 10 at a county council meeting. It has been allowed a small income in 1976 for the college that will be closed.

Meanwhile, the education committee has appointed a 20-member working party of councillors, teachers' representatives and college principals to sift the evidence for closing Hereford or Shennston.

Dr Hunter's letter, however, could have an effect on the voting of some of the members. One councillor, Mr Francis Reynolds, told the education committee that he may be changing his mind in favour of retaining Shennston as a result of it.

Dr Hunter says in the letter:

## Courtesy and professionalism—the marks of Stanley Hewett

A memorial service for Mr Stanley Hewett, former general secretary of the Association of Teachers in Colleges and Departments of Education, was held at London University this week.

Mr Hewett, who died on May 1, was remembered by many of his colleagues in a simple service which consisted of tributes and readings from an anthology of poetry which he edited.

Mr Malcolm Loe, chairman of the ATCDE, said Mr Hewett was general secretary during five years of traumatic change both for the association and the colleges of education. He maintained an outward calm throughout the changes and his counsel would be sadly missed.

His dedicated professionalism, courtesy and loyalty combined to produce a rare administrator whose memoranda were an entertaining read as was his conversation to hear, Mr Loe said.

Mr Hugh Harding, Under-Secretary at the Department of Education, said Mr Hewett's public statements were studiously moderate and

"While the university is, of course, aware of the need for maintaining a centre for teacher education at Hereford, it should be pointed out that Hereford College of Education was not among the group of colleges in which the university initially offered validation of its teacher education courses."

"The subsequent offer of validation to that college was made for a period of seven years when it became clear that the college had not succeeded in its attempts to secure a promise of validation from other sources and the continuation of its courses was therefore in doubt."

"It is the view of the university that the resources of Shennston college and those which will be available to it on the Bromsgrove site fully justify the unequalled offer of validation which the university made. The subsequent and limited agreement to validate courses in Hereford college, however, must be seen as an indication of our view that its resources would not be strengthened over the next few years before the university committed itself to a further period of validation."

The education committee were warned by Mr John Arnett, its vice-chairman, that for a deputation from the authority to go back proposing the closure of Hereford would be a waste of time for the college could make them look ridiculous.

It had become increasingly acknowledged that he was a leader of educational opinion.

The editor of *The Times*, Mr Brian MacAvoy, said Mr Hewett's articles were "clear, lucid and witty" and "a model of the kind of writing which is in the tradition of the great English literary tradition."

Lord Alexander, secretary of the Association of Education Committees, said he was almost the perfect example of what was expected of a man in the education service. "In five years I had never known of an exclamation word passing between us."

Poems were read by members of the English department at Birmingham College of Education which Mr Hewett had headed before working for the ATCDE.

A memorial fund to promote international relations in teacher education has been set up by the ATCDE to commemorate Mr Hewett's name. Contributions should be addressed to the association at 3 Grosvenor Place, London W1H 3BN.

—TES

## 'History essential' for scientists

by David Dickson  
Science Correspondent

Both science and history undergraduates should study the political history of science as an integral part of their undergraduate course, Professor Margaret Gowing, professor of the history of science at Oxford University, said in her inaugural lecture last week.

Science had been part of politics for centuries. It had been a crucial thread in revolutionary thought, and an ingredient of state power whether measured in military or economic terms, Professor Gowing said.

"I have much more political science today at almost every level. What reason, for example, can be given to society—to the taxpayers—for supporting certain forms of science rather than art, music or history, or some clearance or personal consumption?"

Some of the most agonizing problems arising from modern science were political, not scientific or technical, she said.

"Since so many scientists find themselves so deeply involved in various kinds of politics, even undergraduates who intend to pursue research should surely have some baptismal historical preparation."

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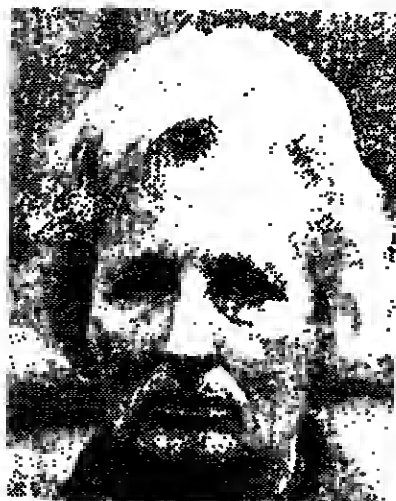
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—TES



Professor Margaret Gowing—  
"Difficult to recognize enormous role of science."

"This is equally, if not more, necessary for those who become scientists in industry or government and for the increasing numbers who move out of scientific work altogether."

Professor Gowing said that it was difficult to recognize the enormous role of science in fields such as

intellectual history and political and social theory from the middle ages of mainstream history to the 19th century.

Although Renaissance and seventeenth-century history were now almost inconceivable without the scientific revolution, which the mainstream history syllabus reached the nineteenth and twentieth centuries, science slipped away from it almost completely.

"This omission of one of the dominant forces of change in these centuries is intellectual impoverishment for the students and intellectual impoverishment for the profession," she said.

The suggestion by some historians that after 1890 science became too difficult to understand and should not be offered as an A-level, Science could be studied in many areas, from many aspects and from different levels.

Professor Gowing said that science was not marginal to undergraduate courses in modern history. It should find a place, not only in national special and further subjects but in the basic and central political studies.

"Unless it is firmly rooted in undergraduate studies the history of science may flourish as a specialism but not as part of mainstream historical study," she said.

## Tory support for University of Europe

The Committee of Vice-Chancellors and Principals is to look into the findings now being taken between the French Committee of Vice-Chancellors and Principals and the West German Board of Deans to increase the number of academic exchanges of both students and lecturers between the two countries.

In a recent reply to Dr Keith Hampson, Conservative MP for Ripon and secretary of the Conservative education committee, who drew the matter to the CVCP's attention, Sir Roy Marshall, secretary general, said: "We have not been approached directly in this particular matter but we are of course ready to consider ways in which academic cooperation at an international level might be promoted."

The Conservative Party is in favour of the idea of a European degree. Dr Hampson wrote: "As the party which took Britain into Europe we are particularly keen on encouraging the concept of a European University and the French efforts ought, we believe to be responded to from our universities."

A new legal journal called *Poly Law Review* was launched this week by the School of Law at the Polytechnic of Central London.

Its editor, Helen Glas, a lecturer in law at the polytechnic, says she aims to "present a law in its social context and to examine how the law is answering contemporary social challenges."

The first issue contains an article

## Students to get bigger role in new Edinburgh constitution

Non-teaching staff and students are to be represented for the first time on Edinburgh University's court, its highest governing body, the court has agreed. The proposals are part of wide-ranging changes to be made in the constitution of the university.

The court should include one member of the non-teaching staff, who should be a full-time paid trade union official, and three student members, including the student union president.

The court is to include a substantial number of members (although not necessarily a majority) who are neither paid by the university nor are students.

After the local government reorganization, Edinburgh District Council and the Lothian Regional Council will each be entitled to appoint a member.

The student office of the rector is to be retained, but the position of rector's assessor to be abolished. The rector, who usually has the role of ex-officio chairman of the court. He will occupy a place on the court, whether he is a student or not, and the court will elect its own chairman from among the members each year.

With the exception of the principal, no member is to serve for more than six years.

Among proposals for departmental changes, it was agreed that students are to be invited to attend staff and faculty meetings "when appropriate". They are already represented on departments' boards of studies.

Heads of department are urged to hold meetings each term. The university's information office should increase its staff when funds become available. It was agreed.

The first issue contains an article

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## CVCP agrees to assist with study of educational expenditure

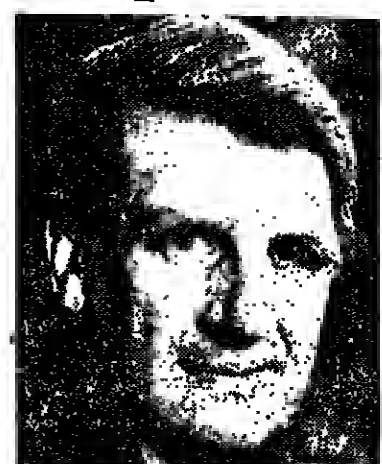
by Sue Reid

University vice-chancellors have promised to cooperate with the Government in its examination of educational expenditure. They now want the Government and local authorities to provide them with the necessary facts.

The pledge has come from the Committee of Vice-Chancellors and Principals, which is to conduct a study on areas of possible saving for publication in November. The study will outline the position of universities in relation to manpower needs, vocational subjects and educational economics.

Sir Arthur Armitage, chairman of the CVCP, said this week it would be a "considered, full and public statement" which would be a special reference to the economies suggested recently by Lord Croom-Hunt, Minister of State for Higher Education.

The CVCP has made it clear that discussion on education economics should include the polytechnics and other fields of higher education. The vice-chancellors claim that full information about student numbers, staff ratios, and costs has been



Sir Arthur Armitage—"at the facts on polytechnics, too."

available only for universities; if similar statistics have been drawn up by the polytechnics they have not been published.

Sir Arthur, who is also vice-chancellor of Manchester University, said: "What we are talking about is education cuts right across

the educational sector, and how much the country can afford to cut from its educational programme."

He underlined the welcome that the universities are giving to public debate on necessary economies in higher education, but emphasized that the priority was to preserve quality.

Universities would make a full disclosure of the facts, promised Sir Arthur. "We shall join in a national study, even though we may suffer as a sector." The report would come after consultation with the University Grants Committee.

Because of economies already started, the average student ratio at universities has fallen a full point to 1.83, the CVCP claims. For more than 30 students entering universities, only one new member of staff was being appointed.

The vice-chancellors emphasized that while academic staff are responding well to the economic challenge, there is a limit to their endurance. They want that in some laboratories it is becoming difficult to improve safety standards as demonstrators and tutors are being cut back.

## Universities face era of financial uncertainty

Oxford University faces two years of financial uncertainty. It was revealed this week in the University's Gazette. Oxford's inner cabinet, the Hebdomadal Council, says that the current Government grant for 1976-77 is not expected to cope with inflation the outlook is uncertain and not promising.

The council, exploiting its budget estimates for the financial year ending July 1976, claims it had been hoped that both the Government grant for 1976-77 and arrangements for ensuring a rise in real terms would be announced at the same time as the 1975-76 grant, which was estimated to April as £16,707,000.

Now the council says: "No such announcement was made and the outlook is uncertain and unpromising."

The 1975-76 grant includes an allowance for inflation, but since no supplementary grant can be expected provision has had to be made in the budget for increases in the

cost of items other than academic salaries. There will be no margin for new expenditure, so new posts and activities will only be supported by redeploying resources.

Total income during the year will be £19,107,660, of which the recurrent Government grant accounts for £17,264,000, compared with the estimated income for the present year of £16,399,783, of which £15,283,583 is recurrent Government grant. Expenditure next year is estimated at £17,855,402, leaving £1,252,258 as a reserve to meet rising costs.

Fears of financial hardship have also been voiced by the University of East Anglia where Dr Frank Thistlethwaite, the vice-chancellor, has already planned a freeze on all new appointments because of lack of cash.

Dr Thistlethwaite has cancelled the university's stand at the Royal Norfolk Show next month, ordered a cut in costs of the annual congregation ceremony, and cancelled

much for members of the University Council and Senate arranged to discuss university problems.

He says it is hoped that the jobs freeze will have an anticipatory effect next year, and plans the other measures to save money this year.

Economies are under way at other universities too. Sir Arthur Armitage, vice-chancellor of Manchester University and chairman of the Committee of Vice-Chancellors and Principals, has revealed that there are about 20 vacant academic posts at his university which will not be filled. The students were there, but the necessary cash was lacking.

The CVCP estimate that for more than 30 students entering universities only one new member of staff is being appointed, one at Liverpool and one at other universities. There will be 400 new students but not a single extra member of staff appointed.

Leader, page 14.

## ATCDE agrees to ATTI merger

by David Hencke

A proposal to create a federal higher education union between the Association of Polytechnic Teachers and the Association of Teachers in Colleges and Departments of Education was soundly defeated by the ATCDE Council on Friday.

By 57 votes to 14, with three abstentions, the council overwhelmingly approved a merger with the Association of Teachers in Colleges and Departments of Education.

The ATCDE Council also agreed that the ATTI should enter a joint membership scheme with ATTI and arrange for a ballot of members in the autumn term to approve the decision.

The decision will be a blow to the APT which, if it could have persuaded the 6,700 members of the ATCDE to join its own membership, privately estimated to be 2,800, could have created a sizable alternative to the ATTI.

An APT statement said that ATCDE members will be outnumbered nine to one by existing ATTI members. On June 14 its council will debate several proposals, including one considering a confederation of associations engaged in higher education.

The APT statement adds: "College of education lecturers by merging with the ATTI will find themselves undervalued in the same way as the polytechnic lecturers were until the formation of the APT."

"It is to be feared that the standard of training for student teachers may suffer and that the new intakes of students to training colleges will fall yet more sharply."

The ATTI said it was extremely pleased by the merger decision, which would strengthen professional unity in higher education.

## Embezzlement case 'secrecy' row

Students and staff at Edinburgh University are angry that the university's administration kept a case of embezzlement by a research worker secret for four months.

Nearly £3,500 provided by the Government for work in the disabled research unit in the orthopaedic surgery department was apparently diverted by means of fraudulent receipts.

Mr Gordon Brown, the rector, intends to raise the matter in the university court.

Student jobs

A statement from Mr K. Holmes, acting principal of Teesside College of Education, said 22 out of 87 third year students at the college have been rejected for teaching jobs, 35 are still under consideration for appointments and 30 have been offered jobs. A further 22 have been given informal offers of future jobs. This enlarges upon a statement by the student president, Mr David Punsbon (*THES* May 23) that 75 out of 100 will be unemployed.

Industrial studies course

The Council for National Academic Awards has approved a new BSc course in industrial studies at Sheffield Polytechnic which will enable students to study science, technology and business studies in an integrated manner.

## Manchester to open Egyptian mummy

by Alan Cline

An Egyptian mummy will be unwrapped for the first time in Britain since the turn of the century when the body of an Egyptian girl died for more than 2,000 years is unwrapped at Manchester University next week. The experiment has been planned as one of the most rigorous investigations of its kind ever attempted, with medical and dental specialists collaborating with Egyptologists to reap the maximum benefits from such a rare event.

The team hope to discover new evidence of the disease afflicting the ancient Egyptians, and more about their still mysterious embalming processes.

Unwrapped Egyptian mummies were commonplace towards the end of the nineteenth century, but the practice fell into disrepute due to the unsanitary nature of many of the investigations resulting in the loss of valuable material. The mummies were abandoned as the supply of mummies from Egypt dried up.

There is a risk that the Manchester mummy—one of 16 in the museum—will disintegrate on exposure to the air. So the team, led by Dr Rosalie Davill, assistant keeper at the museum, have selected a priority wrapped specimen with both its legs broken off at the knees. Dr Davill hopes to discover whether this happened before or after death. She explains that for all but the very rich, mummy cases were supplied "off the peg" and the bodies were altered to fit them.

Dr David's team includes Dr L. laterovoni, a consultant radiologist at Manchester Royal Infirmary, who will use X-ray techniques to test for disease in the mummy's bones. Dr E. Tapp, a consultant pathologist, and Dr A. Curry, an electron microscopist, will look for evidence of skin disease. Mr F. F. Leek, the senior lecturer in the department, will use X-ray techniques to test for disease in the mummy's bones.

It will be the first time that such sophisticated techniques have been used to determine the medical history of a mummy. But at the expert level Mr Roy Garner, a technician in the Department of Conservation at the museum, has been mummifying rats and other small mammals using the ancient techniques, and will compare his efforts with the real thing.

Cameras of the university's audiovisual service will be in action as Dr David cuts the first bandage early on Tuesday afternoon. The film will eventually be shown on television. A book about the unwrapping and the results it yields is to be sponsored by the British Academy.

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## Salford to get new departments

Proposals for major developments in academic policy, including the establishment of new arts and social sciences departments and of an "area studies" sector with particular reference to Europe and the EC, have been approved by the Senate of Salford University.

The Senate has also approved the suggestion that certain degree programmes in the university should be modified to allow potential graduates to spend the third year of a four-year course at a college of education where they would obtain a certificate of education.

The proposals were put to the Senate by the university's academic policy committee, and are based on a planned growth of full-time undergraduate students numbers to 4,500-5,000 by 1977, and subsequently to 6,000-6,500 by 1982, the end of the next quinquennium.

The committee said that particular attention had been given to encour-

aging students in the social sciences, attracting candidates with special qualifications and mixed qualifications, and providing programmes oriented towards the all-graduate professions.

It added that to obviate the student numbers envisaged in the second growth stage, the university would have to undertake a building programme, including a large arts building and matching residential accommodation.

Among the committee's recommendations accepted by the university Senate is the proposal that the departments of electrical engineering and pure and applied physics be requested to consider and report on the feasibility of a common first year undergraduate course between the two departments.

The Senate has also accepted that outside the area of traditional liberal studies the university's adult education activities should be concentrated mainly at the postgraduate level.

## Iranians can go back to college

Travel restrictions imposed on the 21 Iranian students charged with a conspiracy to trespass after they staged a sit-in at the Iranian Embassy in London have been lifted. The students, who made their third appearance in court on May 29, will now be free to return to their universities and colleges until the committee bearing at Bow Street court in July.

The 21, 11 of whom are studying in West Germany and Austria, will no longer have to report daily to the police and were also released on an increased bail figure of £500.

The students were arrested outside the Iranian Embassy on April 29 as they protested over the deaths of a countryman and a woman launched by the World Confederation of Iranian

the students is well under way. Mr Manoucher Kalantari, a Confédération des étudiants iraniens and physical support for the campaign had come from British students, trade unions, and other sympathetic organizations.

"This campaign so far has been very successful," he said. "But we still need more help physically and financially before the committee hearing on July 18."

The confederation has set up a special defence committee with the aim of getting the charges against the 21 dropped. Mr Kalantari said this week there were strong fears that if the students were convicted they might be deported.

"If they are deported from their lives will be in danger," he

## Army retreats from leaflet attack

The Army careers office in Bradford last week closed its doors to a contingent of 500 demonstrators intending to hand out leaflets to the public. The demonstrators were protesting against the recruitment of soldiers to the army. The demonstrators were protesting against the recruitment of soldiers to the army.

A police inspector and a sergeant met the demonstrators and escorted them to police headquarters, where they were interviewed for half an hour before being released.

The demonstrators were: Professor Adam Curle, Professor of Peace Studies at Bradford University; Professor Patrick Corbett, Professor of Philosophy at Bradford; Mr Bruce Kent, of the Rex Christi centre, diocese of Westminster; the Rev David Harding, general secretary of the Fellowship of Reconciliation; Mr Colin Flood-Pepp, lecturer in education at Bradford University; and Miss Laura Fletcher, a member of the Bradford Society of Friends.

## New option for arts degree

Students at the Cambridge College of Arts and Technology may now read art history, with another arts or social studies subject for a BA joint degree.

An unusual feature of the new QNAA-approved degree course is that applicants need neither art nor history of art at O or A level. This is to encourage applicants whose schools could not offer these

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# Bowden says education must be exported

by David Dickson

British universities should export courses to the needs of foreign students who are at present unable to come to this country, Lord Bowden, principal of the University of Manchester, said last week.

"We must not allow the conventional academic machine to become a Frankenstein's monster which we try to fit all our visitors, even at the risk of their lives," he said, at the institute's luncheon presentation ceremony.

Lord Bowden said that the institute was desperately short of money - or expected a deficit of £500,000 next year - and that the Middle East had suddenly become fabulously rich.

"Saudi Arabia could buy up the whole of British industry for the price of a few months of its oil revenue. And all these people desperately want to be educated," he said.

At present the institute had students from more than 60 countries. Each paid a few hundred pounds in fees, while each one cost the British taxpayer about £5,000 a year, allowing both for recurrent and capital costs.

Lord Bowden said that it might be necessary for the universities to undertake some very unfamiliar tasks, but if nothing were done both they and their staff might go the way of the dinosaurs of the Middle Ages and the monks who inhabited them.

"The University of London is going to cooperate in the creation of a special medical school which will be built in London for Saudi Arabia. I feel sure that we could help several Middle Eastern countries to devise and develop their own universities and the rest of their educational system," he said.

"We shouldn't presume to tell them what kind of an educational

system they should have. That must be their decision, but surely we can do something to help and, surely, if we do, we shall be paid for our efforts."

Lord Bowden said that there was a hunger for education in all parts of the world, and that the skills Britain possessed were "more precious than oil".

"We shall not neglect students from countries like India and Pakistan and Cyprus, but we cannot build universities for them on the scale we must expect in these countries which command half the wealth of the earth," he said.

Commenting on recent remarks by Lord Croomer-Hunt on the need to increase the effectiveness of higher education, Lord Bowden said that Lord Croomer-Hunt seemed to know many post-graduate students in Oxford who were "happily frittering away their time at public expense", and producing very little in return.

"He says that the number of postgraduate students in all universities might be reduced to less than 17 per cent, implying that our own postgraduate school is twice as big as it should be," Lord Bowden said.

"He doesn't seem to have the faintest idea of what universities can do, or what UMIST has done and what it is doing today."

Lord Bowden said that the savings made by cutting university education were immediately obvious, but that the real cost of cuts would be paid in the time of the next Government but one.

"Many don't think that the Government is no longer prepared to support the universities. The donor's salary claim is to go to arbitration, but I must remark that we find it odd, to say the least, that men who came here from the polytechnics a year ago are now a thousand pounds a year worse off than they would have been had they stayed where they were."

## DES proposals may mean 70-80 major colleges

by David Hencke

A new group of Institutions of higher education is being rapidly created by the Department of Education and Science.

A survey by *The Times* this week showed that no fewer than 42 different proposals for Institutes of further and higher education are before the Government. If they are all approved, there will be some 70 to 80 major colleges and polytechnics alongside the universities.

The present figure, which could rise to nearly 50 if further proposals are submitted by local education authorities, will mean that a major sector of higher education will have been created without any parliamentary debate.

The proposals vary from large institutions of up to 6,000 students in Humberside and Gloucestershire to small colleges of education of just over 1,000 students, which are becoming diversified liberal arts colleges.

Most of the colleges appear to be attempting to concentrate on high level work, although a minority, including Bradford, Brynmawr, Dunstable, Humberside and Northampton, appear to have plans to keep a large proportion of low level work.

Some colleges have already been designated including Crewe, Alcester, Bradford, Edge Hill, and Berkshire. Others are expected to start admitting students in 1976 and 1977.

The full list of new colleges under consideration is as follows:

Built in combination of two education colleges; Bedford (a combination of two education colleges and a technical college); Bradford (education college and college of art and technology); Brentwood (college of education and technical college); Covent (education college of education, Newman college of art and technical college);

education); Buckinghamshire (college of education and college of technology); Gloucestershire (colleges of education and technical colleges); Chester (diversified college of education); Cleveon and Colchester (college of education and technical college); Crewe and Alsager (two colleges of education); Derby (voluntary college of education and college of art and technology).

Doncaster (two colleges of education and technical college); Durham (2) (two voluntary colleges of education); Eastbourne (three colleges of education); Humberside (two colleges of education, nautical school, college of commerce, college of technology and art college); Lancaster (college of education and technical college); Lincoln (faculty college of education and technical college).

Liverpool (2) (two colleges of education and three voluntary colleges of education); Hove (two colleges of education and technical college); Avery Hill (college of education); Rochampino (four colleges of education); St. Mary's (college of education); Brimley (college of education, art and technology); Luton (college of education and college of education); Manchester (three colleges of education and two voluntary colleges of education); Newcastle (voluntary college of education).

Northampton, Nine (college of education, art and commerce); Edge Hill, Ormskirk (college of education); Northumberland (college of education); Reading (college of education); York-Ripon (two voluntary colleges of education); Warrington (college of education); Warrington-Vernon (part of college of technology and college of education); Winchester-Salisbury (two voluntary colleges of education); Worcester (college of education); Walsall (college of education); Wrexham (North Wales Institute of higher education); college of education.



Professor Stanley Bindoff, the Tudor historian, addresses an audience of more than 200 at his retirement ceremony at Queen Mary College, London, last Friday. Professor of history at the college since 1951, he was presented with two cheques and a silver rosewater dish, an exact replica of the 427-year-old Tudor alms dish from St George's Chapel, Windsor.

## Regional colleges plan 'on lines of Birkbeck'

New regional colleges for mature students and more part-time degree courses in universities are two proposals to be put to Mr Prentice by the Association of University Teachers.

The proposals which are contained in an AUT document on the role of universities in continuing education, were agreed by its council last week.

"Regional colleges on the lines of Birkbeck College, London should be created. It is not possible in the near future, universities should revive the practice of offering degree courses for part-time students, a pre-condition would be Government grants to provide the necessary additional staff," it says.

"With a larger and ever increasing proportion of the employed population educated to degree level, the potential opportunities for individuals to refresh, retrain, reorientate or simply advance are enormous and should be made much more widely available."

"The chances of a mature student being able to attend a university degree at present on a number of irrelevant factors, the documents says. The criterion for admission should be willingness to pursue the course rather than specific qualifications."

"There should be greater co-operation between universities and other higher education sectors should be made easier. But the AUT recommends that universities should retain their individuality. Independence and their own admissions criteria, it says."

Mr Prentice's attention is called to the danger of policies which favour one sector of higher education.

The Government should support universities in four kinds of work for adult students, it suggests. First, the traditional liberal arts education programmes of the extra-mural departments for which the Department of Education and Science should award its grant to cover

publicity, buying books and teaching aids. Second, the kinds of work outlined in the Russell report, such as industrial education, role education (such as courses for councillors) and specialist studies, for which a grant does not yet officially exist.

"The Government should publicly declare its support for the recommendations of the Russell report and provide the financial aid outlined in it."

Third, courses providing post-experience or continuing professional education, for which a grant should be made available from the University Grants Committee, and fourth, retraining courses for graduates which should be financed by the Department of Employment.

The document recommends that encouragement and advertisement be more positive so that "the idea of continuing education may become widely accepted and the courses extensively used by all members of the community. There is a special need to reach that large percentage of the population who have had no post-school education."

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## 'Dial-a-scientist' radio programmes sought

by Our Science Correspondent

More time should be given to the introduction of a "dial-a-scientist" programme for adults, according to a group of leading scientists and science administrators.

The group has also suggested the production of a number of BBC programmes competing the "dial-a-scientist" and religious faith, and that further contacts should be developed between broadcasters and the academic community.

The suggestions have been made by the BBC Science Consultative Group, whose chairman is Sir David Morley, executive secretary of the Royal Society, and whose members include Professor R. L. F. Boyd, of University College London, Professor E. R. Lathwell, of Imperial College London, and Professor J. D. Phillips, of Oxford University.

In a report to the Committee on the Future of Broadcasting, set up under the chairmanship of Lord Ammon, the group says that BBC science features are "unequalled" and that their share of time and resources should be maintained or, if possible, increased.

The group also says that science should be presented as an "integral human activity" related to other aspects of culture and programmes should not be separated into a special channel.

The distinction between science

and technology as a managing it, should be kept clear, it says.

"Technological progress may be identified with scientific inquiry, but in people's minds and a post-graduate effort should be made to avoid this," the group says.

On the ethical problems associated with scientific advances, the group suggests that there should be some programmes in which the ethical and presuppositional bases of science and religious faith are compared.

The group says that BBC producers must aim at objective presentation and try to dispel any cynicism of the scientist about the editing of recorded interviews, unscripted interviewing or unacknowledged bias.

"It is important that the BBC should keep in close touch with and enjoy the respect and confidence of the scientific community, but it is also important that scientists realize their responsibilities and respond to the privileges brought to them by this means of mass communication."

## News in brief

### Group examines overseas aid

How much aid Britain's universities and polytechnics can or should provide to developing countries is one of the main questions which the new working group on British universities and overseas development is to look at.

The working group will be chaired by Sir Michael Swann, chairman of the BBC and former vice-chancellor of Edinburgh University. It has been set up by the Inter-University Council for Higher Education Overseas, and follows a conference at Reading University last year.

The group will include vice-chancellors and other academics, and representatives from the Committee of Vice-Chancellors and Principals, and the Committee of Directors of Polytechnics, the University Grants Committee, the British Council, and the Council for Technical Education and Training in Overseas Council (CETOC).

It will look at how far British institutions are able to take in aid and students from overseas, how they should contribute to teaching about overseas development, and how these services could be organized.

### Tropical medicine gets grant

Mrs Judith Hott, Minister for Overseas Development, has approved a grant of £300,000 to the Liverpool School of Tropical Medicine as a contribution towards the cost of building a wing to house the new department of tropical child health.

The Ministry will also make an annual grant of up to £55,400 to wards the running costs of the department over seven years to help a course of training in tropical paediatrics.

### Experts committee

Five academics are among the "technical experts" who have been invited to join the Committee of Experts on Major Hazards under the chairmanship of Mr Bryan Hawes, deputy director of the Health and Safety Commission.

They are: Professor J. F. Richardson, Swansea University; Professor J. C. M. Morrison, Bristol University; Mr V. C. Marshall, Bristol University; Professor T. Chubb, Manchester University; and Professor F. Loos, Loughborough University.

### SRC synchrotron

The Government has authorized the Science Research Council to proceed with the building of a synchrotron radiation source at the Council's Daresbury Laboratory, Cheshire.

Its estimated capital cost is £100 million, and it is expected to be ready for the first experiments in about four years' time.

### Literacy bids

Sixty local education authorities have now submitted applications for a share in the Government's adult literacy grant, the largest resources agency says in its latest news sheet. So far a total of £2.5 million has been allocated in 44 authorities mainly to cover teaching materials and teacher training.

### New joint degree

Newcastle University is to start a new joint honours degree course in ancient history and archaeology, which students are expected to enrol October next year.

### Friendship post

Mr Steve Parry, the national secretary of the National Union of Students, is to become the new national secretary of the British Society of Friendship Societies in August. Mr Parry, who is a member of the Communist Party, succeeds

# Don's diary

## Monday

It is difficult for a province the size of Northern Ireland to run the full panoply of government. The requirements of independent representation on the various statutory bodies mean that academics do more than their share of public duty. Today's coffee-break at one such meeting was enlivened by some log-pulling by a colleague from Queen's University. "I hear they are making pseudo-professors at the polytechnic," he remarked, nibbling at his Marie biscuit. With Hamilton providing a temporary advantage financially, it looked as though the last university differential of professional status was being demolished - the ranks of the semi-skilled being accorded craft status.

The issue was not that simple. It had been one of those rare occasions when the academic board refused itself from its usually so polite posture, and turned away from the burden of deciding whether or not St Patrick's Day should be a public holiday to debate the matter. Opinion had been divided. Further discussion with my university colleagues revealed that opposition to the move to create professors rested as much on social as academic reasons. Apparently, readers of the *Ulster Taster* might be unable to distinguish between poly and university professors.

Back in time to conduct a Briefing Group. Punched the idea from a year ago, I thought to convey to the staff thinking at the top. Despite proliferation of committees and minutes, information transmission is sluggish. The common cry is "how are decisions made round here?" Something from my days in industry have never ecclimated myself to (where decisions are made by and large, was clear and unambiguous and easily transferred to the executive function. Proposals are not ruled out but more frequently referred back for "further consideration" to another committee. Collective responsibility means no-one really owns the problem. Anyway, staff were not interested in much of what I said.

Reminded me of induction weeks for new starters in ICI. Marvellous charts were prepared showing what the various divisions produced and sales figures for Australia and Argentina, where the most pressing need of the newcomer was to cope with his job.

## Indications of academic good taste



MR CREWE

"For university lecturers," according to a recent letter to *The Times*, "hardship amounts to wondering where the next bottle of claret is coming from." How wrong can you get? Most of my university friends react to filling their airing cupboards with bubbling, blagone of elderberry and Isle of Arran Campagna for Real Ale which makes the roofing with junior faculty, that the Good Wine Club.

Mid you, although the going is rougher, this game is the same. There may be less money to fill the pot, but the rules on how to spend remain intact. Indeed, reduced budgets make adherence to first principles more necessary.

## Thoughts relevant as I motored down to Harland and Woolf, where as part of the £60m bonanza, the Government have set the firm and the unions the impossible task of producing proposals within eight weeks. Took Professor Ravens with me. He addressed 150 shop stewards, drawing on his experience as Director of Training in the National Coal Board shortly after its nationalization. Joint consultation with workers was established, but remained totally ineffectual. As one ex-miner training officer remarked, he might as well have gone round the graveyards of Britain with a cine-camera trying to get a snapshot of the Resurrection as hoping for a successful application of joint consultation.

I had addressed a group of junior managers the previous week, asking them some elementary questions about market share, profitable products, new developments. They claimed not to know the answers. The managing director told me he had given the information some months ago. He thought perhaps it was a waste of time. I told him I could not, off the top of my head, give him accurate figures for enrolments for the Polytechnic, only those which were relevant to his area or those I had heard that morning. The important thing is revelation manifests trust.

Back to the Polytechnic in time to take an evening class. Member of staff off sick for three weeks. Take the view of teaching that a professor of surgery takes. The keeping your hand in, trying to show you are as good as the job, show your stuff. You also have a better feel for what is happening on the ground floor. The register recorded 23 absent students of management, who had enrolled in the heady days of September. Only 11 had stayed the course. Institutions collect their statistics during the first months of October and November, might get a better measure of their efficiency if they took a count later in the year.

## Tuesday

Two yellow forms on my desk requiring signature for members of staff to attend a one-day conference. The Oliver Twist syndrome. Coo I have some more? Reminded myself that there is a more intelligent way to conduct staff development. It is to analyze organizational objectives. Staff choice can be very

quick taste of the theists consider the absence from academics' homes of ersatz rusticity—varnish-wood namo platos or horror of horrors, electric fires with mock-logs.

Thirdly, in proletarian. This is an optional extra, but in the present economic and ideological climate, increasingly popular. The point to remember is that this style has little to do with how the present-day working class actually spend their money (on keg or bottled beer for instance). Like contemporary Marxism, the style commemorates an idealized and historical proletariat, drawing inspiration from the nineteenth century.

These three canons of academic good taste will serve well in any sphere. Take houses. The ideal is one that allows for the display of our connoisseur's items in a suitably authentic and preferably proletarian setting: the knock-through, tarred labourer's cottage; the period farmhouse (with "exposed beams" as the estate agents so perceptibly point out); or the Victorian manse. They go best with the earthenware pots and copper spoons. But where straitened circumstances reduce us to the real, there are still numerous ways to exhibit our distinctive values. On the modern, middle-income estate on which I live, observation of self and fellow-academics records the following:

1. We regularly invite colleagues for Black Friday though we meet most days at the university. This is because connoisseurship (whether of food, drink or decor) requires an audience in the home, which is the first place, of course, which we like to real sit, for instance, to discuss the virtues of a first principles more necessary.

arbitrary. Discussion on the topic can draw you into arguments about academic freedom. I am always perplexed as to why staff shy away from accountability and staff appraisal of performance behind the great mumbo-jumbo of academic freedom.

Morning spent interviewing. The system is a good one. Membership: academic staff, predominantly from the faculty appointing, but with a member from another faculty, and one by governor for perspective. Engaging thing about Ulster is that the whole area is warm, friendly and informal. I remember being interviewed by a lecturer education sub-committee in Durham and South Yorkshire composed of 25 members, a liquorice assortment of fish livers and pork butchers, insurance agents and railway porters—worthy men, but abysmally ignorant of education.

Back to my room to find a letter from my publishers, enclosing an advance royalty for my book to be published in the autumn. The advance could no longer go ahead and the publisher was putting a previous book on its sixth edition. My wrath somewhat dispelled when the editor in question wrote a few days later, leonically announcing that he along with 40 others had been declared redundant. Houghton's sales are affluent in comparison. The sixth-formers presenting a request to a group of managers following the DMS. The original idea had come from the regional board of the British Institute of Management, who were wanting to attract young people into industry. Strange when you think of the same way of creating a superb structure for consultation while the yard sinks slowly in Belfast Lough. I told my secretary not to make any other appointments for the day. I've come to the conclusion that talking is sedition. It is a bit like settling down for a shift. If I had enough courage I would bring along a Thermos flask and sandwiches.

The sixth-formers were excellent. They were the two finalists in the Young Students Competition. By a happy accident (particularly in Northern Ireland), one group was given a reading of *Swann's Way* by Ernest Schumacher, especially appropriate for the South. Rigorous analytical discussion is difficult at the panel meeting. The members are all so courteous.

Later, I call in at the Dail to discuss a week-end conference at Corrymeela, a centre for reconciliation in the North. Marvellous conversations by Ernest Schumacher, especially appropriate for the South. Rigorous analytical discussion is difficult at the panel meeting. The members are all so courteous.

## Wednesday

The Polytechnic has managed to keep itself out of the troubles. Reflected in the same way as the rats survive in the middle Ages. Hermonious communities within singing melancholy; peasants dying of Black Death outside. The scene today slightly different. Within, students preoccupied with economy and civil engineering; without, a dreadful lot of fratricide essential, intimidation of the grassroots kind. Wild, beautiful research

2. We do not wash, or talk about, our cars. The first is the well-known pathological variant of connoisseurship, namely conspicuous non-consumption. The second, according to an anthropologist, reflects the fact that as objects of the consumption cars possess innumerable varieties of academic taste, they are a way that displays both knowledge and cultivation.

3. Our gardens are fruit and vegetable-oriented rather than flower-oriented. Home-grown produce has a central place in the academic life-style, being considered authentic, proletarian and on the subject of connoisseurship at one and the same time. Allotments have an ethos of cherishing and a Mosaic hint of intellectuals working the land and constituting the purest expression of this style.

4. On the whole we do not own pets. This is a puzzling and attributable to a deeper reason than I can discern. Perhaps pets come into the same category of conspicuous consumption as cars: not amenable to conversion that displays expertise and judgment.

5. We do not name our houses. This can be ascribed to a mixture of symbolic proletarian gesture and the absence of any felt need for respectability.

6. We all wait to loathe the estate as soon as possible and live in a period farmhouse or Victorian manse. What coherent theme lies behind these peculiar habits? The answer is a deep-seated contempt for the more philistine sectors of the middle class. It was not always so: the redbrick universities owe their existence to the turn-of-the-century alliance between the middle class and the working class.



Jack Lynch—"exquisite manners".

## Friday

A letter inviting me to attend the Course Committee on the Physiotherapy School. A nice thing about the Polytechnic is its diversity. It is reassuring as the para-medicals build up to know that my limbo, speech defects, and even my corns could get emergency treatment.

A vim voice exom for a student who has been referred. The Polytechnic is new and there is a great deal to be learned in getting staff, many of whom have previously been used in rather ad hoc arrangements, to accept more disciplined procedures. Sealing up in size from live staff in 500 in four years presents a management task of singular magnitude. There have been surprisingly few hiccups on the way.

A meeting in the afternoon with a Dutch peace worker. Northern Ireland has become a veritable Mecca for all those students, the world over, who are pursuing peace studies.

## Thursday

One day in the month, or less frequently, I cross the border to sit on the Business Studies Board of the NCEA, the Republic of Ireland's equivalent in the CNA. It is best to catch the Enterprise to Dublin in order to catch up on reading or papers. I am reading *Swann's Way* by Ernest Schumacher, especially appropriate for the South. Rigorous analytical discussion is difficult at the panel meeting. The members are all so courteous.

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## Saturday and Sunday

Normally at home. But frequently up at Corrymeela, one of the few places where bridges are being built rather than blown up. Working with the RUC and community groups, extending ways of establishing a more effective police presence, and what service the police can give to local communities in tackling their problems. Unless one takes a view that enclaves is a natural and desirable state, this is some of the most worthwhile work I do.

Bruce M. Cooper  
The author is Dean of Management and Continuing Education at the Northern Ireland Polytechnic.

Next week: Don's Diary by Ossian.

days the class was loathe to hate is the petit bourgeois. The reasons are understandable. The lower middle classes are the perfect target for intellectual attack. Being neither cultivated nor proletarian they have no claim to our cultural or political allegiance. Lacking power or status, they offer respectability and deference from the worker, they can only disapproval. Commanding a similar income to lecturers they remind us of our downward mobility. All the more reason therefore to long on to our status by deliberately dissociating ourselves from our uncouth class neighbours.

Avoiding petit-bourgeoisism still leaves us the choice of upper class or proletarian pretensions. It is either *The Times* or the *Daily Mirror*, never the *Daily Mail* or *Express*; Rodios 3 and 1 rather than 2.1. Sunday Concert or the "Old Grey Whistle Test" but not, heavens forbid, the "Eurovision Song Contest; claret or real ale. Something that manages to combine proletarian or gentry living with dissociation from the lower middle classes is best of all. Isolating oneself in cottage and farmhouse are perfect.

The trouble is, though, that most of us have never been able to afford the slightest gesture towards upper class living and even proletarian style is now getting beyond our pocket. Knockthrough conversions cost a fortune. Hubert priests have stricken. And they charge the earth for denim suits. And now, the last straw: we can't afford to entertain.

There's no getting away from it: denying we are old middle class costs nothing, but it's why we need a



## Earmarked grants may ease medical money crisis

Medical schools should put pressure on the University Grants Committee to have their grants earmarked within the UGC's recurrent grant to individual universities.

This was one of a number of suggestions put forward in a report which was the product of a working party set up by the Association for the Study of Medical Education.

Other suggestions included the appointment of non-clinical lecturers to teaching posts in clinical departments, and the complete restructuring of medical services in a way that would allow other staff to take over some of the doctor's responsibilities.

Dr Robert Lowe, of St George's Hospital medical school, London, told the conference: "The UGC proposals can only make things worse for the financial situation of the medical schools. If the schools become departments in multi-faculty institutions, they will have first to fight their case there, and then the case of all the schools has to be fought, as it is now going on at further down the pecking order for further funds."

Earmarking would be particularly helpful to the London schools where the annually existing clinical department were financially for worse off than in the provinces, he said. He did not include Oxford, Cambridge, Nottingham or Southampton, which had different forms of finance.

Taking figures from the Government education statistics for 1969 to 1970, he showed that the UGC costs per student that year in London for pre-clinical work was about £1,120 per student unit in the province, about £910. For clinical work, the cost per student in London was £916 compared with about £1,340 in the provinces.

The London medical schools were therefore roughly 30 per cent short of UGC funds per clinical student compared with the provinces, he said.

Sir Hugh Robson, principal and vice-chancellor of Edinburgh University, who chaired the discussion, came out strongly against earmarking. "To preserve freedom of decision in universities, allocations to the medical faculties must be made in the context of allocations to other faculties."

Priorities are very hard to judge. Who's to say if it is more important to have another lecturer in clinical medicine or accountancy, where the pressures are very high and many want to enter. My view is that because the judgment is so difficult, the UGC will resist the clamour for earmarking. Decisions are better taken close to the point of action, rather than at a distance without local knowledge."

Earmarking might be necessary where new schools were being built, but not subsequently, he said. "If a medical faculty is successful

in getting its funds, this looks medical education straight along the conventional route and it might as well go in with the Department of Health and Social Security", he warned.

"The strength of retaining medical faculties within universities is that they are operating in the same context as other faculties, and while there are prejudices, they are not peculiar to medicine versus the rest; they also exist between other faculties."

Dr Lowe argued, however, that decisions taken about allocations in London were not necessarily any nearer the point of action than if they were taken by the UGC. He urged the 12 London medical schools to make a joint request that each should have its grant earmarked for the UGC for a defined period. Of the 12 schools, Southampton, Nottingham, Leicester and Cambridge are among those whose grants are already earmarked.

It was suggested by Professor J. B. L. Howell, of Southampton General Hospital, that it might be advantageous to persuade the DISS to adopt earmarking in its field in the schools as well as the UGC.

Specific ways of effecting economies in the schools were outlined by Professor J. A. Bottomley and Dr J. E. Dunworth of the economic department of Bradford University, who argued that economies could be made peacefully, and at the

same time as expanding student numbers, without decreasing the quality of output.

From their research at Bradford, they showed that there was considerable surplus capacity in lecture theatres, teaching, science laboratories and staff. Dr Dunworth said that if the costs of buildings were considered, it was found that the space the students occupy was as expensive as the staff who teach them. So economies must be seen in terms of space as much as in teaching costs.

He estimated that on average at Bradford the undergraduate teaching laboratories were used for about 40 per cent of a 32-hour week.

The UGC norm was about 46 per cent and the extent to which laboratory places were occupied by students who used at all was about 45 in 65 per cent compared with a UGC norm of 90 per cent.

"If we expand our student intake we can reduce student costs in relation to the level of utilization, so there is a substantial saving if we can find the extra students to fill the space."

No increase in staff was necessary, he argued. More students meant the same number of hours of face-to-face teaching and the same size groups, but it meant more staff teaching. "One could, on this argument, let the staff/student ratio deteriorate to 30 per cent that is 70 per cent of

its present level, without affecting group teaching or the hours of contact. The saving would be 7 per cent per student cost."

More far-reaching economies proposed by Professor J. B. L. Howell at Birmingham University, who challenged the whole philosophy of personal doctor and supported by Medical College, argued that a range of medical personnel might be trained in specific areas and necessarily to university level, before spreading the work now done by doctors.

The effects of the House situation on recruitment were raised, and Professor Howell said of the difficulty of recruiting lecturers in clinical subjects, providing training for them, now hoped to appoint non-clinical lecturers in the clinical departments, he said.

Professor H. J. Walton of the department of psychiatry at Edinburgh University warned of dangers in failing to renew medical academics for the whole field of medical education. The posts at the beginning of the scale were those that were the most vacant. A warning was given by Sir Hugh that since three-quarters of medical faculty costs were salaries, redundancies would be to continue.

Frances G

## The hunt for health—a medical cause to unite all nations

Surprisingly, the International "sreno" in student health is somewhat incoherent, because illness is common in all men and the problems of the student world, one might imagine, be similar in Fiji or Finland. That they are not is perhaps more due to the system of care provided than the fault of the consumer—and so what comparisons are valid if in one country tuberculosis is still a major problem while in another senility is the main cause of consultation?

There is only one organization that masterminds an international "think-in" on the problems of student health and it recognizes the necessity of combining apparently disparate groups of interest in order to cover the whole field of adolescence—the International Union of School and University Health and Medicine, or to the lingua franca of Indidomus, UHMSU.

Sponsored indirectly by UNESCO it organizes annual symposiums and quadrennial congresses, and the host country is obliged to create a programme, invite speakers and put on show its community care facilities. The problem, of course, lies not in the multitude of organizations, which are vast enough, but in covering, to the participants' absorbing interest, a subject that only has certain areas of mutual involvement.

The Symposium in late 1974 was in Sweden and perhaps appropriately the unifying theme was that of depressive illness and sex, this year it is to be in Mexico with "Student Health Insurance Schemes" occupying a relevant (for the developing countries) dominance in the matters for consideration. Next year it is the United Kingdom's turn to host the meeting—with what theme to offer?

Student "sit-ins" do not offer much of medical interest, nor do rent strikes to representatives of countries where students are lucky to be able to eat, or survive the next cold season. However, some field of common concern will no doubt be explored.

One important aspect, however, colours delegates' view of their fields of practice and that is political. Thus the medical representative of one country will outgrow his national system of care as an introduction to his paper—as if he has to, or there may be no job for him to go back to.

Another will berate the occidental audience for the evidence previously given by another speaker of such "decadent" diseases and disorders as VD, pregnancy, pot smoking and schizophrenia—as if they do not exist in his country because of its political slide of government. Alas, we are all moulded too much by our backgrounds to be truly omniscient or genuinely open minded.

Nevertheless, the Stockholm conference reinforced the aspiration that complicity, particularly in the field of student health, is totally unwarranted.

To hear that in Uppsala, Sweden, there is a death a week from suicidal shooting among students, and that 300 adolescents a year in the city of Prague indicate to the side, city Samaritan services that they have already made some kind, or are about to make an even more serious kind of suicidal gesture, is sobering indeed.

Adolescent depression is still somewhat lightly treated to the United Kingdom, as likely to be a result of crossing in love or a mere passing frustration, yet the tip of the iceberg is already showing in the student's rising incidence of deliberate overdosage for this age

group. It may be as well that they have not, in this country, access to firearms, or that a National Health Service goes then unrestricted opportunity for medical care but there is no room for complacency simply because of this.

Similarly to learn that in Italy sex education in secondary schools is virtually banned, while in Portugal they are starting it in primary schools, reveals a somewhat startling disparity in the views of "catholic" countries and their attitudes to education.

In Belgium as in the United Kingdom 40 per cent of 18-year-olds have surrendered their virginity, and internationally there is concern that youth does not make use of contraceptives however freely provided.

In all countries the peak age group requiring abortion (where it is legally available) is that of the 15 to 25-year-olds. So much for the ineffectiveness of sex education. Even in Sweden where contraception is again a compulsory sex of study for all schoolchildren there is nevertheless an annually rising incidence of abortion.

If the adolescent therefore, at least in Europe, is apparently untroubled sexually, and at the same time desperately unhappy, what of the services that are available for their care? Is there any developing trend that we in the United Kingdom might initiate to prevent the dangers that would seem to be on the horizon for student and school child alike?

### Adolescent danger years are from 15 to 22

Perhaps the Minister of Education for Sweden showed the path for, along with his colleague in Finland, he indicated the Scandinavian governments' concern that students were so well looked after medically, and the adolescent of the population at large so poorly cared for, that consideration was being given to the possibility of student health services being disbanded and community adolescent services created instead. "To provide equal care irrespective of social, economic or geographical background" was as important as to provide equal educational opportunities. It may be the way for us, as well as them.

Certainly when in the United Kingdom the majority of crimes of violence, first infections with VD, illegitimate pregnancies, convictions for misuse of dangerous drugs, and acts of suicide by means of overdosage all occur at their peak in the age group of 15 to 25, then we must not assume the adolescent of today is particularly healthy, socially at least.

Perhaps, therefore, when we host the Internationalists we should lay bare our adolescent skeletons that are at present in the cupboard—consoled that our students only protest over transient trials and do not share the characteristics of those outside the campus.

Perhaps, too, when we see the cossified student we should spare a thought for the potter's peer who is as apprentice, shopgirl, typist or gasfitter by no means free of the same problems of stress, depression, sexual frustration or anxieties over success. If there is one thing that is dangerous to the formation of balanced attitudes is excessive introversion, and the university physician can be as guilty of this, as anyone else—the wider world offers many lessons to us all.

Alexander Gunn

The author is director of the health service of Reading University.

## Together we sit, divided we pass out

"Great dangers like good wine" wrote de Tocqueville, "make men more affectionate". If there is anything good at all about the prevailing system of three-hour examinations, it is that at the entrance to the examination room after a year's anticipation and before the year's competitive comparison of examination results students are drawn together. For a moment we all face the same danger though we do not stem or fall together.

Most of Cambridge continues because of inertia and nowhere is this more true than in the university's way of examining people. There are very few people who would wholeheartedly support the three-hour examination as an exclusive test of general intellectual ability. Some faculties offer dissertations instead of one, or, in the case of the English faculty, two papers. Scientists have practicals, modics have vivas but in arts subjects there are not even compulsory essay examinations for linguists. The academic god is the three-hour four-question examination which will brand one for life.

Three-hour examinations undoubtedly test something. But it is only when one is a student and can see the treatment effect of preparing for and recovering from the three-hour examination that one can see clearly what they test. Above all else they test one's stamina and capacity to survive under intense pressure. For I have years who do five three-hour papers in two and a half days need hand muscles which do not get tired from writing and a capacity to sleep at night so they are not complex physical wrecks.

Then examinations test a capacity to be completely ruthless and self-inflict on people—that what they are testing is the capacity not to feel faint or nauseous or have writer's cramp and not to notice if the boy next to one is ashen white and about to burst into tears.

Maybe Cambridge students do lead a life of material luxury, comparatively free of stress for most of the year, and this is what makes the stress of three days in the summer term so tortuous and unbearable. But nobody seems able to say why the stress could not be distributed throughout the year.

Quite apart from their physical effects, examinations are frustrating mentally. One may have been studying criminology all year and then only to find in it, but the examination is the last of five and one simply has no energy left to think, let alone write clearly. "Nothing," a don once said to me, "is more alienating than marking 100 essays on alienation." Nothing,

controlled, an ability not to spend one hour answering an interesting question because it would leave no sufficient time to answer four questions.

Then again they test an ability to be completely absorbed in what one is doing from the moment of go and forget the croaks of the floor or the heat of the sun.

Undoubtedly these three abilities are relatively permanent and may be desirable character traits but they are also very contingent on just how one feels that particular day.

But there are so many other factors which determine one's performance, like how easily one's fingers blister, which badly have a crucial bearing on one's intellectual powers but may be all important in an examination. I often wonder if the people who control the examination system realize the intense physiological changes they

## Student scene

inflict on people—that what they are testing is the capacity not to feel faint or nauseous or have writer's cramp and not to notice if the boy next to one is ashen white and about to burst into tears.

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one can reply is more alienating than writing in 45 minutes about a subject one may have taken three years to prepare or discovering that though one has spent one month revising the unification of Germany there is no relevant place to write one word about it in a text of one's modern European history.

Perhaps all examination papers should end with a question like the developmental psychology paper once had: "Pose and answer a question on the psychology of development which does not appear elsewhere in this paper."

But even that would not solve the real dissatisfaction with exams, that what they are testing is not doubtably a real ability but a very specific one, namely the ability to do three hour examinations on a particular day and gear them to the taste of a particular examiner.

There are real objections to continuous assessment, oral examinations and all other forms of quantitative assessment one can think of; a union debater though "brilliant" at three hour examinations may not want to work all the year; a student of German though very knowledgeable about Goethe may not be able to speak a word to a twentieth-century Gorman. But the abilities to work all year and speak a language are as important in the long run as the ability to avoid accumulating in an attack of Cambridge's own special disease of tripos. So why cannot an assessment of these abilities be continued in that grand old which may haunt and stigmatize one for life, however much one says one does not care?

The answer is inertia. The people who do the assessing are the ones who have triumphed in the system and the tripartite division which often has psychological consequences far beyond Brave New World.

Great dangers may make men more affectionate for the one moment they stand before the examination room door. But they do not make them get as much out of university education as under a more rational system of assessment.

Kari Blackburn

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## Choices harden as exams approach



The eighth part in *The THES* serial about the choices facing school-leavers after A-level takes in a sixth-form college in the Home Counties

Although students at this Home Counties sixth-form college had made few changes in their plans, they did have some comments to make about their experiences since November when they were last seen.

Steve, who has been successful in receiving offers from all five of the universities to which he applied, said that the style of interviews he had been given varied enormously. He was particularly impressed with Warwick, where students showed him around the campus and gave him the lowdown on the place.

"As I got there a student offered me a cup of tea and reassured me that Warwick was short of applicants in English. Some of the interviews were just cosy chats where they did not really ask you anything. At Bristol, on the other hand, they really put you through it."

The style of interview did not affect his choice though. He had opted for Bristol, which was his first choice. It had offered him a place on condition that he gets two Bs in his A levels.

He is taking French, English and Spanish and would still like to do English with Russian at university. His English teacher still thinks he ought to stay next autumn and take Cambridge entrance examinations but he wants to see how good his A level results are first.

Roshma, who had applied to five medical schools in London and is doing physics, chemistry and bio-

chemistry, was disappointed with the system of applying to university.

"It seems so much a matter of luck. I have been offered a place at Brunel, which was my third choice. I wasn't expecting to hear from my third choice and I only put Brunel down because the careers officer suggested it. I do not know if it is any better or worse than any of the other colleges."

He has had no reply at all from King's College, London, and says that several of the others at the sixth form college have not had replies, although the medical schools are supposed to have let them know by the end of March. Several students apparently had rejections but were later called for interview.

Rashima himself has had three rejections but as Brunel had offered him a place on condition that he gets three Cs in his A levels he is hopeful that he will be able to go to medical school as planned.

Julie, who is doing French, German and economics and passed British constitution in January, is still as firmly convinced as ever that university has nothing to offer her. She has already found herself a job.

In November she wanted to join the Civil Service but has since decided that her ambition there is too slow. "In the Civil Service, it is really a question of dead man's shoes. So, although the starting pay might be better, I would rather have a more interesting job."

She went on a course put on by Harlequin Bank earlier in the year, liked it, and has now occupied a

tioned with a starting salary of £1,635. She starts on July 1.

Anobel, who is doing general mathematics and economics, also passed British constitution in January; still hopes to do a degree in economics and mathematics but is uncertain whether she will go next autumn. She is still in the habit of hearing from the local authority who sponsor some student degree courses. If they were to accept her she would have to wait there for a year first.

She had put Sheffield and Nottingham universities as joint choices. Sheffield has offered her a place on condition that she gets three Cs.

Digby, who is doing mathematics, physics and English, is still unsure whether he will be able to go to university. He has not applied this year anyway.

In November he felt that his teachers were trying to push him to go to a college of technology which has many deficiencies but which he has now definitely decided against. His problem is that he has no foreign language at all but wants to read English at five universities will accept him on that basis.

He feels that he was badly let down at the senior school where he got A levels and only found out about the language requirement when it was too late.

He plans to take a year out before he happens. He has got a job as a barman from which he earns enough to travel back home but is prepared to return to his A levels if he fails them this summer.

Rias is just doing biology and physics. He says he still has no idea what he wants to do and feels he has been pushed around too much by his parents, who would like him to go to university.

He has now passed the O level which he had to retake in year 11. He has now passed the O level which he had to retake in year 11. He has now passed the O level which he had to retake in year 11.

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## NOTICE BOARD

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Conference), St. Anthony's  
as possible as there will be a

There will be a conference on recent developments in Portugal at St. Antony's College on June 13, 14 and 15. Papers will be given in English by five leading Portuguese academics. Interested academics are invited to write to the Warden (Portuguese Conference), St. Antony's College, Oxford, as soon as possible as there will be a strict limit on numbers.

Other limit on number of



LETTERS TO THE EDITOR

Use of English

from Mr H. S. Davies

Sir,—When, about 12 years ago, a test in the use of English was made an entrance requirement by Oxford, Cambridge, and the five universities of the JMB, all the OGC examining boards, except London, set up appropriate examinations.

The Secondary Schools Examinations Council, in the advice of a Committee on English Language Examining of which I was a member recommended that these should not be recognized by the council. The effect of this decision was to prevent the formation of what was then called a "subject pool" to coordinate the standards and methods of the new test.

The examining boards, however, asked their senior examiners to meet regularly, to compare their tests and their results. They have done so. Careful comparisons have been carried out, with full statistical controls, often aided by the setting of common questions, including multiple choice tests. In recent years I have acted as chairman of this body, and my fellow examiners have encouraged me to write this letter, to express certain misgivings which we feel about the future of literacy among entrants to universities. I should make it clear that, while I believe the broad points developed in it to be agreed among us, the details and precise expression of the broad argument are my own.

By headsman the new test was broadly welcomed, and most of us have continued to feel that it has served a useful purpose in ensuring that some attention is paid to the use of English in sixth forms. Despite the general antipathy of English masters the examination has continued to attract a large number of candidates.

When, in 1966, the JMB ceased to make it a compulsory matriculation requirement, there was a sharp fall in numbers, but the total entry remains at nearly 30,000 a year. The reason for the change by the JMB was not that the test was thought to be in itself unsatisfactory, but that it might be causing some loss of good candidates who preferred to enter universities which imposed no such test, notably London.

It was the hostility of English teachers which ensured that the SSC refused to recognize the new test. They were, of course, in a majority on the committee mentioned above, as they would be on any committee set up by the Schools Council. All the university representatives were in favour of the test, but they were outvoted, as they would be on any committee set up by the Schools Council.

The English teachers' attitude does not spring from mere perversity or prejudice, but from the fact that their usual name is a gross misnomer. Their training (and according to the Bullock report one third of them have no "discernible qualification for their role") is mainly in English literature, not in the English language, and in all serious discussions of these problems they should be called "English literature teachers".

Most of them are, quite rightly, devoted to their subject, and they tend to regard any teaching directed to the language as a diversion, and, in fact, a distraction from their main task. This attitude is naturally reinforced by the fact that they have not been equipped to deal with anything but literature, poetry and drama. The report of the committee noted that, if more attention were paid to the language, the problem of providing suitable teachers would still arise, but many equip themselves with a few books which have not been tested during their training, and we believe there are many teachers of English who would wish to devote time to a study of language" (paragraph 116).

It may be doubted whether this belief has proved to be well grounded, but on a very small scale, English teachers remain devoted to their subject, and they tend to regard any teaching directed to the language as a diversion, and, in fact, a distraction from their main task. This attitude is naturally reinforced by the fact that they have not been equipped to deal with anything but literature, poetry and drama. The report of the committee noted that, if more attention were paid to the language, the problem of providing suitable teachers would still arise, but many equip themselves with a few books which have not been tested during their training, and we believe there are many teachers of English who would wish to devote time to a study of language" (paragraph 116).

Finally, I must emphasize that these problems are no concern of the Schools Council. As mentioned above, the council's predecessor, the SSC, specifically rejected our request that they should approve the test. The examination has worked very well for 12 years without their help or interference, which could only be damaging and disruptive. Let the English literature teachers, with their control of the council, do what they will with the common English examination. But the sixth form test in non-literary English is the concern of the universities, and the professions, which are either underrepresented on the council, or hopelessly underrepresented, so that the teachers, wherever, and above all in this, years since.

DAVIDS

Concepts of knowledge

from Mr P. J. Riley

Sir,—Following Professor Ronald Fletcher's introduction of the expression "educated superficiality" in connection with interdisciplinary courses (THESE, May 23), one wonders whether there is currently any research being conducted by educational psychologists into the relative merits of depth as opposed to breadth in degree courses. In view of its importance, there certainly seems to be a need for evidence about the question.

Professor Fletcher says: "The essential thing in a university course is to experience the rigorous requirements of a discipline; to renounce the qualities of mind involved in establishing reliable methods of study, criteria of judgment and knowledge. These standards of excellence can then be carried into the exercise of judgment in all other fields of life." I agree wholeheartedly with this, but would like to see the problem systematically examined; it would not, though, be an easy task.

Except at an everyday level, knowledge is for from simple, and the corpus to which the word refers grows, it will become less so. I believe that in most knowledge of an advanced kind and to make judgments about complex phenomena it is necessary to possess mental skills which can only be developed when one has acquired a sufficiently complex conceptual structure.

The ability to conceptualize

quickly and easily at the most sophisticated levels and the objectivity to avoid premature commitment to new ideas are essential. It is difficult to imagine that these capacities can be derived from any other source than the study of a subject to considerable depth.

Independence of judgment, which is one of the skills that many people would agree should be developed by a university course cannot be born of a limited knowledge, especially when that knowledge is confined to concepts which only form the introduction of a subject.

If empirical investigation should show that this opinion is correct, or even that it is false, then both university and post-O level sixth form courses would have to be organized accordingly.

Yours faithfully,  
JOHN RILEY,  
Walsingham,  
Norfolk.

from Mr Ross Hesketh

Sir,—I cannot help thinking that the two arguments given in the third column of Ronald Fletcher's "What's Wrong With Higher Education" (THESE, 23 May), of one of which he approves, and of the other disapproves, are in fact quite symmetric.

In approval he writes, "but only in such a way as to give the candidate the benefit of the doubt"; in disapproval, "but special pleading in one way only: to

ensure as high a mark as possible for the student". In approval he writes, "... if it is, he would be left at the firm class he had attained"; in disapproval, "... then the guaranteed mark remained".

His opponents come to their conclusion by the same motives and reasoning as he comes to his. Only the initial assumptions differ. His opponents assume course work to be a better guide than exams to a student's knowledge. He assumes exams to be a better guide than course work. But having made their assumptions, each group seems to act with similar clarity.

What we wish to know then is which is the better assumption. Can this not be put to experimental test? The number of graduates under each scheme of assessment is considerable. Can the sociology department devise an experimental test to tell us which scheme is the better in assessing those who have "benefited from University education", say over the next 10 years, or some other interval, of their lives?

I am tempted to say that the number of sociologists is also a number to the task, but whether they can agree on criteria for educational blindness, educated superficiality, or educated ignorance, I do not know.

It is a non-equilibrium system, friends, something should be made of it.

Yours sincerely,  
ROSS HESKETH,  
Lower Stone,  
Gloucestershire.

OECD report

from Professor Reinut Jochimsen

Sir,—Your publication of the OECD report (THESE, May 9) fired in the Department of Education and Science and its way of educational policy planning, brought back to me the German educational policy when under review and would probably have been relieved had it come with the verdict that, while very efficient, it relied perhaps too much on traditional informal contexts and the experienced "fact" of the leading administrators rather than on well grounded conceptual mechanisms for participation.

As one of the three "examiners" in the OECD exercise, as a professor of political economy and as an administrator I feel tempted to take up your points one by one—but there would not be much use in that and it cannot possibly be done.

The quotations are, as far as I can see, correct and your printed whole text of our report. Nobody could ask a national newspaper not to pick the juicy pieces out of a long text for the headlines, though the text might just as well yield phrases like "US and Continental Expertise" or "UK alternative to Organizational Perfectionism".

In more serious terms I find the selection and some of the comments by Messrs Kogan and Dickson fair in several ways: to the DES; to our attempt at weighing out gauging, and—most important—to the issue of educational planning in a free society. That issue is certainly more complicated than to imply from our critical comments and final questions that we knew—or thought we knew—the answers.

"It is not just of international politeness that we put forward reports the reflections on pragmatism, professional neutrality of the Civil Service, the informal testing for consensus, gentle leadership, etc.; but the interest of doing justice to the history of policy making and to the social and political context and also doing justice to our own professional and political integrity."

So what I wish the report should lead to, in a paper like THESE, would be some lucid independent thinking on what the problems of educational planning, or any other free social policy planning, are in a free society, of what the interplay between the social groups, the administrative and Parliament should be, and how it can be organized, and to what extent all this is dependent on the individual historical and social setting. That is my mind: is what OECD is concerned with in its series of Country Examination exercises, where the problems are largely the same.

DAVIDS

under-taken, once the smoke has cleared.

But wherefrom the smoke? There are some insinuations of the kind that the DES has apparently requested a delay in publication, so that it appears together with the report on the "Confrontation Meeting" that took place, as the regular last step in the OECD regular examination exercises, within the OECD Education Committee in which six experts from all member states.

The purpose of the examination report is to lay the foundation for a set of critical questions to the official representatives of the respective country's government. The critical assessment then is not meant to be "final" but to be preliminary and to incite the discussion which in the tradition of the OECD was open and to the point.

The report on the "Confrontation Meeting" then is an integral part of the whole procedure, the exercise—and the picture drawn by the examiners—is incomplete without it, political evaluation promulgated by the DES, but sound and established OECD policy in order to maximize the value of such an exercise for all concerned; an effort to commitments not to be compared with other—international—less engaged attempts to describe and compare systems.

The next round after the publication of the full examination then will be, I believe, the analysis and reflection. The DES does it, and the system of which it is a part, as well as the educational service it serves, too.

Yours sincerely,  
REINUT JOCHIMSEN,  
Professor of Political Economy,  
University of Kiel.

Manpower planning

from Mr Neville Kushner

Sir,—You reported Lord Crowther-Hunt's statement halting the inclusion of the manpower planners into higher education (THESE, May 16). The following week there was no return to the issue by way of letter or article, although a fair amount of space was devoted, as is common these weeks, to the questions of unemployment.

Somehow, the salaries issue has become associated with that of "quality" in higher education. It seems to me rather more fundamental to see manpower planning as the latest threat to the independence of university and polytechnic teachers as well as to the quality of education.

The Robbins principle did not need much reinforcement from Lord Crowther-Hunt to place education fairly and squarely into the investment function for society, a useful, very degrading of the consumption element. The costs of an education system not to manpower needs

the benefits of one that is based on the manifest needs of individual students or institutions. The problem is that their experience social and private needs do not always coincide.

Basically, our system of selection for higher education, elitist though it is, and I do not defend that, has the important feature of a diverse range of institutions and courses allied to relative freedom of choice for the student. We have nurtured a largely mobile student population to support this diversity. That this freedom would be incompatible with a large-scale element of state planning is not a matter for conjecture but for reference to historical precedent. The "swing" away from science in the 1960s (more precisely a swing to social studies) was this freedom of choice manifest and openly flouting the attempts of education planners to provide for much needed technologicalists.

Given the singular (and as yet poorly understood) nature of the present choice at this level, the same planners would have to recognize that the system is very much in a state of flux. Changes, both in the secondary school and university curricula, of the kind of students into socially desirable or preferred areas.

The changes in the schools, involving as they probably would do fairly progressive measures the delayed socialization, might well be welcomed. Would external imposed changes, progressive or otherwise, be welcomed in the universities? Given the jealous defence of the special university tradition inherent in the selection argument I suspect that is unlikely. And yet, the exclusive spirit of the planners, someone is looking while the universities smoulder.

Yours faithfully,  
SAVILLE KUSHNER,  
School of Education,  
Bristol University.

European pay

from Mr Roland Hall

Sir,—Mr Fletcher is proud of being pro-European. But part of the European idea was that salaries should be harmonized throughout the EEC. We now have the paid civil servants in Europe (see *Times Business News*) that is not Mr Fletcher's doing, but it is his doing that we now have the worst paid professors and lecturers. Is this his contribution to the European idea?

Yours sincerely,  
ROLAND HALL,  
Department of Philosophy,  
York University.

A further selection of readers

DAVID COWARD'S inimitable analysis of French classical literature

Cardinal Richelieu, the three Mosquitos and all that

The most striking feature of classical French literature is that it was nearly all written by people with eminently translatable names: Rook, Root, Some Cards, Heather and, not least, Fountain. Drinkwater just gets in, but now scholars exclude French names, as has been said, he finally came to the conclusion that he should arrive before all the others.

The history of the period is confused and we may do no more than touch briefly on the principal events. After morning Edith of Nantes, Henri (or Henry) IV succeeded in preventing Catholics and Protestants (known as Fargers-me-nots) killing each other. Unfortunately, he did not succeed in preventing Rook, lac of Aurillac (not to be confused with Darius of Aulencia—see Chapter 23) killing him. With startling illogicality in a race renowned for their reason, the French allowed Louis XIII to succeed Henri IV, though Louis XIII did not succeed in preventing Cardinal Richelieu (dubbed Grey Eminence).

Louis XIII, as his name suggests, was terribly unlucky and left nearly everything for the Grey Affluence to do. Richelieu was not very lucky either because he was constantly outwitted by the three Mosquitos, a band of four brave soldiers who were forever stealing the Queen's neckties, the Bishop's candlesticks, the "hijous indiscret", "les perles du la couronne", and so on.

After Richelieu became a cardinal (to be exact, the French Monarch Ooh), he ruled France with a velvet glove, which covered as many dangers to his cost, as "masque de fer". But everything has an end (except a banana which has two) and finally the Grey Affluence died.

He was succeeded at once by Cardinal Mazarin, who was even greyer, but also half-foreign. Then Louis XIII died, and Louis XIV took over. Louis XIV was a very clever, but also half-foreign. Then Louis XIV died, and Louis XV took over. Louis XV was a very clever, but also half-foreign. Then Louis XV died, and Louis XVI took over. Louis XVI was a very clever, but also half-foreign. Then Louis XVI died, and Louis XVII took over. Louis XVII was a very clever, but also half-foreign. Then Louis XVII died, and Louis XVIII took over. Louis XVIII was a very clever, but also half-foreign. Then Louis XVIII died, and Louis XIX took over. Louis XIX was a very clever, but also half-foreign. Then Louis XIX died, and Louis XX took over. Louis XX was a very clever, but also half-foreign. Then Louis XX died, and Louis XXI took over. Louis XXI was a very clever, but also half-foreign. Then Louis XXI died, and Louis XXII took over. Louis XXII was a very clever, but also half-foreign. 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## 'Save Yale' drive nears \$100m

from our correspondent

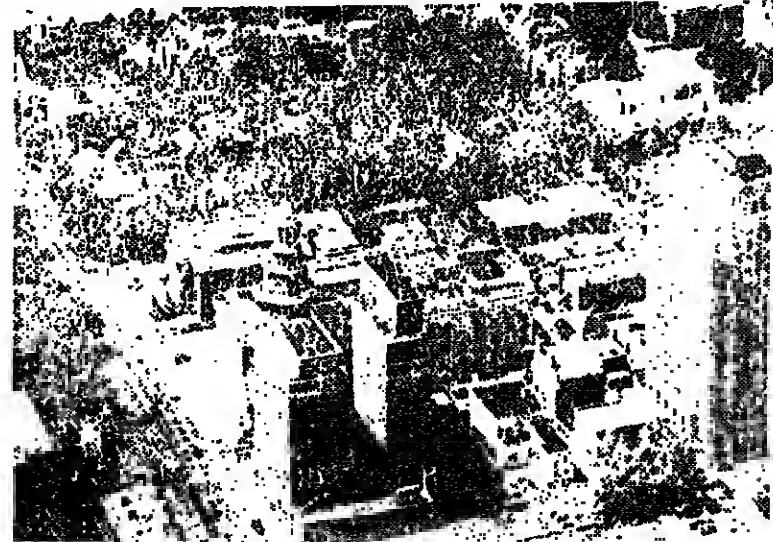
NEW HAVEN  
In April 1974 Yale University launched a campaign to raise \$100m by the end of 1977, the largest private fund-raising campaign ever attempted. After a year in operation, the Campaign for Yale is "trailing on the brink of \$100m", according to Donald M. Marshall, director of the campaign's information unit.

Despite a 20 per cent reduction in educational expenditure in real terms over the past three years, Yale has continued to record significant operating deficits. The bulk of the projected \$370m will be used to maintain the quality of existing facilities at the university; few new facilities are planned for the immediate future.

Not all of the \$100m raised so far can be attributed to the efforts of the 75 campaign employees. The bulk of the \$100m would not have been given to the university without the presence of the Campaign for Yale.

None the less, Mr Marshall estimates that "more than half" of the \$100m would not have been given to the university without the presence of the Campaign for Yale.

Expenses in the first year of the campaign are \$2m. By the completion of the campaign in 1977, total expenditure is expected to be no more than 4 per cent of the amount raised—ur, assuming the



Yale University: raising the money.

\$370m goal is reached—about \$14m.

The thrust of the campaign so far has been directed towards individuals capable of providing "leadership gifts" of at least \$500,000. Campaign officials believe about 850 alumni are in a financial position to contribute gifts of this size. The Leadership Gifts Committee has been assigned a target of \$165m, the largest goal of any division in the campaign. Over the next year, the focus of the campaign will shift from leadership gifts to the Major and Special Gifts Committee, a group with the goal of raising \$110m in smaller contributions from the broad base of Yale's 90,000 alumni.

The other main element in the campaign is the Special Projects and Foundations Division, directed by Professor Robert W. Winks, a specialist in the history of British imperialism. This division seeks \$40m in foundation grants. The campaign may also not be

hindered by the increasing numbers of alumni children admitted to Yale in recent years. Among students applying to enter Yale for the 1974-75 academic year, the sons and daughters of alumni constituted 9 per cent of the applicants, but 21 per cent of the entrants. The comparable figures among students applying in 1969 were 8 per cent and 14 per cent respectively. Yale offered admission to more alumni children in 1975 than in any other time over the last 25 years.

The university has prepared a list of "some typical gift opportunities" for prospective donors. Although the minimum endowment required for a professorship is a hefty \$800,000, a named scholarship fund for undergraduates costs as little as \$35,000. And the truly impetuous donor may care to note that a named fund for books and prizes can be purchased for a trifling \$5,000.

## Arts graduates worst hit as job offers fall

from Angela Stent

CAMBRIDGE, MASS

All over America the class of 1975 has been taking part in an important rite de passage over the past few weeks—graduation and entry into adulthood. However, whereas the receipt of a BA formerly meant the beginning of one's working life, commencement ceremonies are coming increasingly to reflect the limbo into which the world of the unemployed.

Figures recently released by the College Placement Council show that job offers for June graduates are down about 4 per cent from a year ago and more students than ever before—1,250,000—are looking for work. They are also competing with a sizable pool of 1974 graduates who are still unemployed.

About 60 per cent of this year's graduates are getting liberal arts degrees, and this explains part of the problem. Even the few industries that have increased their campus hiring—accounting, metals and food processing—have little use for these "generalists". The most overworked disciplines are education, English, history, psychology, sociology and political science.

However, demand remains strong for engineers and business specialists, particularly those in high priority fields such as energy and agriculture. The College Placement Council has found that job offers are up 18 per cent for graduates with masters degrees in business.

## Never-never fees scheme falls on stony ground

A tuition fee postponement plan, hailed as a major innovation when it was introduced in 1971 by Yale University, now faces an uncertain future. The plan, devised to meet the spiralling costs of private higher education, was aimed at making it easier for children from lower income families to attend such expensive Ivy League institutions as Yale.

If a student chose a tuition fee postponement option, he could borrow a substantial part of his college costs, and repay it over a 35-year period. But repayment was gauged to overall income so that a student who went on to earn a large income might repay up to 150 per cent of his debt, while a less well-to-do classmate would only have to repay the actual sum he had borrowed.

Yale expected other universities to catch on to the programme "on a scale to the scholarship gap" and caused by a withdrawal in federal funding and a decline in investment portfolios of private universities.

## Riesman attacks 'soft' marking

Students at Harvard University have received higher grades than they deserve, says Professor David Riesman of Harvard in a Carnegie Commission report on Higher Education published in Education and Politics at Harvard.

This "grades inflation" and the introduction of courses granting pass/fail marks instead of conventional grades are symptomatic of the erosion of the "meritocratic" principle at Harvard, Mr Riesman argues. "Meritocracy" had been hardy at Harvard when it was attacked on the grounds that meritocratic procedures are biased in favour of the white, educated middle class, and even viciousness, violating the principle that all people are fundamentally equal," Mr Riesman says. Some students came to feel that "merit" had been defined in a self-serving way by already dominant elites.

Grade inflation has occurred partly because black students, who have been going to Harvard in increasing numbers since the late 1960s, often take courses for which they are not prepared, knowing "very well how difficult it is for a white liberal faculty member to grade them severely", Mr Riesman says.

## Rectors meet to decide fate of Euroconference

from Paul Monrman

VIENNA

A key meeting of the 25-nation Conference of Rectors and Vice-Chancellors of the European Universities (CRE) is due to decide the future of the organization here this weekend.

More than 200 executive heads of universities, nearly all from West Europe, will be voting on proposals to radically alter the constitution of CRE. The debate is likely to be long and keen.

Created in the early 1950s as the result of a British/Benelux initiative, the organization has always stuck carefully to the discussion of "non-political" matters.

It has also fastidiously refused to lobby governments with its points of view.

An essential part of the CRE credo has been that it should be a forum for vice-chancellors to meet informally for frank discussions about the mutual problems facing European institutions of higher education.

For this reason, the CRE constitution stipulates that membership of the body should be vested in the executive heads themselves rather than their institutions.

But the organization has been consistently boycotted by the Soviet Union and most of the rest of the East European bloc largely on the grounds of the "Cold War" character of parts of its constitution.

References in the preamble to the need to maintain "freedom of expression and communication" were especially unacceptable to the Soviet Union.

The boycott led the Unesco meeting of Ministers of Education in Bucharest in November 1973 to pass a resolution calling for the establishment of a new body to promote European understanding at university level.

This demand was repeated by the Soviet Union in Bologna last September at a meeting of European universities following the general assembly of CRE.

Since then various working parties have been trying to hammer out a compromise aimed at preserving CRE and at the same time bringing the Socialist countries in from their self-imposed cold.

These vice-chancellors anxious for



Outside Parliament House, Vienna

the format of CRE not to be tampered with fear they will be asked this weekend to vote for a constitution which will be institution-based rather than individual-based and which will be far more of a political talking-shop than hitherto.

And although the Bucharest resolution expressed the hope that any new body would make use of "national surveys already in existence", radical amendments to the CRE constitution will obviously have to be agreed upon if the East is to enter.

Among other things, the name of the organization will probably have to be altered in the European Association of Universities.

But the changes will be the price CRE will have to pay if it—and its philosophy—are to retain any real influence in European higher education.

A stay as we are "vote could lead to the setting up of a rival body containing important institutions from both East and West and leading to defections from CRE.

Its credibility as a conduit of European higher education opinion would be seriously, if not fatally, impaired.

Canada

## Government plans revamp of research funding structure

from Israel Chinen

OTTAWA

The government is proposing to revise the granting structure for support of university research, Mr Hugh Faulkner, Secretary of State, whose department is responsible, in 1973 federal support for research and education fields, the most expensive federal commitment in that area remained the continued support, through provincial finances, of the operating costs of post-secondary education.

In 1973, federal support for post-secondary education totalled \$1.4 billion, or almost 53 per cent of the total cost of post-secondary education and research. Provincial contributions to post-secondary education and research was 30 per cent, student fees 10 per cent and other sources (gifts and endowments) made up the final 7 per cent.

He said that plans were being drawn up to establish two separate granting agencies, one for natural sciences and one for social sciences and humanities. The proposal will involve restructuring the existing National Research Council and the Canada Council.

The two new agencies would be coordinated by an "Inter-Council Coordinating Committee", with no

executive powers, but acting in an advisory capacity on the allocation of funds among the council.

Mr Faulkner said that although the research support programmes constituted the most visible federal government presence in the research and education fields, the most expensive federal commitment in that area remained the continued support, through provincial finances, of the operating costs of post-secondary education.

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Australia

## Science policy advisory body named

from Jarlath Ronayne

BRISBANE

The composition of Australia's second science policy advisory body has been announced by Mr Bill Morrison, Minister for Science.

The first, the Advisory Committee on Science and Technology set up by the McMahon government in 1972, was disbanded within months by the incoming Labour government and, since the end of 1972, the Federal Department of Science has been seeking the advice of the scientific community on the functions and responsibilities of the proposed Australian Science and Technology Council (ASTEC).

In January ASTEC's terms of reference powers and composition were announced at the Congress of the Australian and New Zealand Association for the Advancement of Science. Since then it has become the Science and Technology Council (STEC) with Dr J. A. Matthews, vice-chancellor of Monash University, as its full-time chairman.

There are three practising scientists on the council—Professor S. F. Harris and R. L. Sluyter, both of the Australian National University, and Professor G. J. V. Nossal, director of the Walter and Eliza Hall Institute of Medical Research in Melbourne.

The representatives from the social sciences are Sir Encl, professor of sociology at the University of New South Wales and John Passmore, professor of Philosophy at ANU. The powerful chairman of the Australian Research Grants Committee, Professor R. R. Street, is also on the council.

The other members of the council represent the government sector, the industrial sector, the trade unions and Women's Liberation.

## Council calls for 'mobility centres'

by Judy Chase

National mobility agencies should be set up in individual countries to facilitate movement of university teachers, research workers and postgraduate students in Europe, the Special Project Mobility of the Council of Europe's Committee for Higher Education and Research, has proposed.

A major obstacle at present, which would require more than mobility agencies to overcome is the economic situation in Europe. Economic considerations have caused a trend in some countries to reduce the number of foreigners admitted to higher education and research, the report says.

The report also notes two obstacles which apply only in Britain. It cites the extremely high fees charged by British universities and the fact that some research councils award scholarships only to people who have been to the country three years.

The preference among British staff for teaching in English-speaking countries (America, Canada or former colonies) rather than in Europe is also discussed. The report says: "Here the obstacle seems to be the general difficulty for, or unwillingness of, university staff to learn foreign languages."

A feature of the British system of higher education which is being pointed out is long-term financial planning, which helps to develop research work for more than one year at a time.

Among the important general barriers to mobility mentioned in the report are "excessively complicated" grant application procedures for staff positions, as well as studentships; rigid national salary levels and financial conditions in some countries; insecurity about the recognition of time spent abroad for promotion and pension rights in some countries; and reluctance to recognize foreign postgraduate diplomas and

Holland

## Controversial lottery stays for another year

from Lynn George

AMSTERDAM

For the 1975 academic year Dr Ger Klein, Higher Education Secretary, has announced an elaborate university admissions procedure to lottery chance. Thus all applicants will be valid for one year only and will follow closely the amendment Dr Klein made to the 1972 enrolment Act which has still to be approved by Parliament before the summer recess.

Certain qualified candidates will be unconditionally admitted. These include applicants who have completed their two years' military service, those who obtained an average grade of 7 or more (exams graded from 1 to 10) in their grammar school leaving examination and a predetermined

number of students from the Dutch colonies of Surinam and the Antilles.

For the remainder a lottery system will operate based on the principle that the higher the final examination figure, the greater the lottery chance. Thus all applicants with a grade seven have a 95 per cent chance, those with a grade 6 76 per cent and those with less than 6 a 64 per cent chance of drawing a university place out of the computer at the university admissions clearing house in Groningen.

Faculties opening a number of places this year are medicine, dentistry, veterinary surgery, physical education, pharmacy, biology, social and physical geography, Dutch history and English.

West Germany

## Left rivals agree to formation of national union

by Günther Kloss

West German students have at last succeeded in forming a national association which will officially represent all 800,000 students registered at universities, colleges and advanced technical colleges.

The Vereinigte Deutsche Studentenschaften (United German Students Association—VDS) was created at a conference in Gießen by amalgamating the previously separate national organizations for students in advanced technical colleges (SVH) and for students in the other higher education institutions (the old VDS).

The conference was the second attempt to agree on a constitution for the new association, following a 1974 decision by the two old unions to link up. An earlier joint meeting in March had to be abandoned with only about one-fifth of the constitution approved because members' views clashed to such an extent that a compromise appeared impossible.

The most disputed issues concerned representation and electoral matters: the number of delegates per student at the annual conference, the majority (simple or two-thirds) stipulated for elections to the committee and the electoral system (proportional or absolute majority) on the basis of which the central council, the highest authority of the new association between the annual conferences, would be chosen.

The differences of opinion on these issues were not between delegates from the two national founder organizations, nor between representatives from the 160-odd individual student unions but were based on the policies and tactics of the various political groups that have dominated German national as well as local student politics for several years.

Virtually all these groups are left-wing and largely because of the apathy of many students they have often secured control of individual unions in elections. Even though some very recent trends indicate a shift away from the radical Left to more centrist groups in some institutions. Even the conservative Christian Democratic Students have gained in support and they now control the student parliament at the universities of Karlsruhe and Ulm.

Overall, however, the radical Left is still the dominant political force. It is divided into several factions. Thus the old VDS was since 1970, dominated by the Spartakus and the SHB.

Even its programme for the next few years was passed against their votes. This fact does not, however, appear to have led to a less radical line of policy. German student organizations regard themselves as eminently political and vigorously defend their "political mandate". They are much more concerned with denouncing capitalism and proclaiming the solidarity of students as representatives of the progressive intelligentsia with the struggles of the working class than with representing the immediate interests of their members.

Since ever the new organization opposes the policies of all three major political parties, communist, liberal, and conservative, and the federal government will not have been made any easier. There is therefore as yet no chance of the government restoring the substantial subsidies which used to be paid to the national student organizations and constituted a major source of revenue for them.

Republic of Ireland

## £2.5m bail-out for universities

from Peppy Barlow

DUBLIN

The crisis in Irish university finances is to be alleviated by a government Supplementary Estimate of £2.5m. This will cover the shortfall in the current accounts and other incomes set against the estimated expenditure for Irish universities.

Earlier, when no such relief was forthcoming, the universities were suggesting that they would have to introduce massive fee increases and possibly stop staff pay for the last month of the academic year.

Some fee increases have already been announced, but it is assumed that the more drastic suggestion of docking salaries will no longer be



More letters: page 10



# BOOKS

## Equality for all men

1. 88 Carter Lane, London EC4V 6EM



## Housey-housey

The UK Housing Market: An econometric model by Christine M. E. Whitehead. Saxon House, £5.50. ISBN 0 317 01005 9. Reviews of United Kingdom Statistical Sources, Volume III. Housing in Great Britain and Ireland by S. N. Farthing and D. C. Fleming. Heinemann Educational, £5.00. ISBN 0 135 82394 1.

Until recently housing has been one of the least fashionable areas of economics in this country. This is remarkable because it not only constitutes a substantial part of the Government's expenditure but also plays a vital part in the determination of living standards, but it also raises a number of intellectually provocative questions in economic theory and policy.

Many of these issues are analysed in *The UK Housing Market*, a work which attempts to provide a model to forecast the short-run supply and demand for new dwellings in the owner-occupied sector. Although very specific, this is an important subject especially with the recent inflation in house prices, and of all housing problems it would appear to be one of the more susceptible to econometric analysis. The model used is made up of three equations; the first seeks to explain the demand for "completions"; the second deals with the supply of completions; and the third relates "starts" to "completions" by a time lag mechanism. The central section of the book discusses the specification and fitting of those equations.

Written for the professional economist, his patience and resilience will often be severely tested by the notation (a comprehensive list and definition of which is relegated to an appendix); by the number of equations presented (most of which could have been appended); and by the lack of any clear quantification of the correlations between the explanatory variables. This is a field where extra information about variables is required to enable the reader to judge whether he agrees with particular specifications and interpretations.

The first four chapters of the book provide a clear and concise statement of the context for the econometric work and the last four chapters examine the policy and research implications of the fully specified model. Both these sections can be recommended with confidence to any intelligent student of the subject and each is distinguished by an unpretentious style, modest claims for the results of the analysis, and sound judgements.

Both the efforts of analysts and the discussion of policy towards the private sector tend to be preoccupied with demand. The demand models tested here are fairly conventional, seeking to explain completions per head of the population in terms of income per head, the cost of housing in the country, the rate of inflation and the size of the existing stock of dwellings. Thus the consumer is seen as comparing the relative merits of new and existing dwellings and of housing expenditure with other expenditure.

## ADULT STUDENTS

### Education Selection And Social Control

Earl Hopper, Marilyn Osborn. Preface by Ralf Dahrendorf.

This is a study of how a system of educational selection shaped the attitudes of the postwar generation, and how it created a group of disoriented people who are now adult students. ISBN 0 317004 10 7. 187 pages. Hard £1.95.

Frances Pinter (Publ.) Ltd., 161 West End Lane, London NW6.

## About the capital

The first volume of a biannual publication *The London Journal*, A Review of Metropolitan Society Past and Present, was published by Longman Journals (Longman House, Burnt Mill, Harlow, Essex) on May 29 at £6.00 per year.

With an impressive roll-call of specialists on the editorial committee, initiated by their interest in London, the journal aims to have two main dimensions: one historical and the other contemporary. The plan is to combine the work of historians and scholars in other fields, in order to present for the first time a more complete study of the whole region (not just the central area of the city), in its historical, its societal and its cultural framework.

## BOOKS

### When the state tills the soil

Agrarian reform and agrarian reformism by David Lehmann. Edited by David Lehmann. Faber, £5.50 and £1.80. ISBN 0 571 10486 X and 10603 X.

A number of case studies of the use of state power to alter the relationship between the tillers of the soil and those who live off its fruits in Chile, China and Peru, form the core of this book, together with some theoretical essays. It is a scholarly and topical introduction to an important subject.

Lehmann's paper on Chile emphasizes both the crucial role of work locatives for collectivized agriculture and the cost to society of relying on administrative rather than market methods of achieving agricultural policy goals. Both the importance of inputs and the efficiency of administrative methods of organizing agriculture are well known from East European experience. It is a pity that the *United Populists* did not learn something from that experience, instead of merely repeating its mistakes. Shilling's paper on China in 1947-50, with its emphasis on the complex relationship between the social structure of the village and the shifting policies of the Communist Party, provides a useful introduction to a subject increasingly distorted by mythology.

On the theoretical side, Bell provides a first class study of ideology and its role in agrarian reform. Byss's paper is his conception of agriculture as the milk cow of industry. This ignores the implications

of agriculture for the sake of industrialization. He advocates this model for India despite the experience of the USSR and China. In the USSR the Byss model led, in the short run, to mass starvation and in the medium term to the imposition of an extremely repressive regime on the entire society. In China Mao has consciously rejected the Stalin-Byss model in favour of an indigenous pattern of development. If the object of policy is to increase the marketed output of grain, why not simply advocate sending the police and the army into the villages to kill off the livestock? It would encounter less resistance than collectivization and be at least as effective. It is noteworthy that when discussing the methods for extracting the surplus Byss omits to mention the efficiency of industry as one of the factors determining the terms on which the marketed output of agriculture is obtained. Provided that efficiency in industry rises over time, Byss's ground for objecting to capitalist agriculture simply disappears. The intersectoral terms of trade can be satisfactory for agriculture and the marketed output rise while simultaneously the proportion of the urban labour force engaged in producing goods for agriculture falls, as long as there is a steady rise in productivity in industry. It is amusing to read in a book published in 1974 that for sugar export prospects are bleak. The fundamental weakness of Byss's paper is his conception of agriculture as the milk cow of industry. This ignores the implications

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Michael Ellman

## The American way of death

Mortality and Morbidity in the US by Carl Ebbardt and Joyce Berlin. Chicago University Press, £5.00. ISBN 0 674 25875 5.

Monimer Spigleman was a lecturer at the Metropolitan Life Assurance Company of New York, but he saw his responsibility to his profession in a much wider light than that of a calculator. His view was that an actuary was responsible for examining the whole state of health of a country for as a man lives so does he die and as a man dies so do we have some inkling of how he has lived.

Spigleman, as chairman of the statistics section of the American Public Health Association, was largely responsible for initiating a distinguished series of monographs which review the state of health of the United States in considerable depth. Previous volumes have studied separate aspects of the problem such as cancer, the neurological diseases, tuberculosis and infant and maternal mortality, but this particular volume is a summary of the pattern of mortality and morbidity in the United States and covers not only the whole country, but also the whole life time of the country from its early founding days.

Spigleman did not live to see the publication of this volume, but the present authors have made it a worthy memorial to his life's work.

The United States was one of the first countries to establish a national census who in 1790 it was decided to count the people to determine what were the human resources available to the Republic, but surprisingly it was not until 1923 that an adequate system of birth and death registration was established throughout the whole of the Union. As a consequence the study of mortality in the earlier years was based on records of certain selected causes such as New York, or Massachusetts, who did in fact maintain adequate records throughout their history.

It is exciting to realize how severely pestilence and disease affected New York City during the whole of the nineteenth century. The mortality rate except for a few solitary years remained above 45 per thousand persons for almost the whole of the century and in some years it reached levels of 45 per thousand persons. During the period from 1847-1856 mortality remained

above 35 per thousand persons for the whole decade. The two diseases which caused greatest devastation were tuberculosis and epidemic outbreaks of cholera. No country in the world today has mortality rates remotely approaching these.

It is important that we in the present century with our problems of cancer and of coronary heart disease should look back at the early beginnings of modern society to see the great advances that have occurred and learn upon what firm foundations public health must be based in order to maintain and improve the health of the community. Mortality in New York started to decline around 1890 and fell to a level of about 12 per thousand by 1920. The reasons for this fall were not medical care but were due to the great improvements in the quality of the water supply and consequent elimination of cholera and the enteric diseases, together with marked improvement in the mortality from tuberculosis. But by 1920 mortality in the United States had stabilized at a lower level and has fluctuated from year to year since then between nine and 12 deaths per thousand persons per year. The expectation of life for males in the founding years of the Republic is estimated to have been 35 years, by 1890 it was almost the same, but by 1920 it was 55 years and by 1968, 67.5 years.

The authors examine many aspects of the social environment that determines health. They show the effect of poverty even in today's affluent society. The number of discharges from hospitals in 1968 for families with an income under \$3,000 was 174 per thousand persons, but if income was over \$15,000 the hospital discharges were 101 per thousand. In England and Wales the hospital discharges to 1968 from the National Health Service were 97 per thousand persons.

The protective value of matrimony as a social element of morbidity and mortality is clearly demonstrated where the rates for single persons for certain diseases are four times as high as they are for married persons. Tuberculosis is still an important cause of morbidity and death to persons without a stable home environment. Education is a most important factor to be considered. The infant mortality of children whose fathers had had only eight years education was almost double that of the children of college graduates.

It is, of course, well known that disease patterns vary widely between races and it is a matter of vigorous dispute whether this is due to genetic or environmental reasons. In the United States the diseases causing death to whites, blacks or Japanese and Chinese, are quite different.

But all is not well, there are signs of an increase in mortality rates during the 1960s and this has been largely due to an increase in coronary heart disease, to cancer of the respiratory tract and deaths from violence, a feature which has also been experienced by other advanced communities.

A more detailed analysis of recent trends suggests that mortality for males has not improved since the late 1950s and that for certain age groups and racial groups the upward trend may have become worse during the 1960s. This is due to the increase in the use of motor vehicles and the increase in expenditure on Medicaid and Medicare do not seem to have influenced the mortality of males. Women in contrast do seem to have benefited by these measures.

Clearly society today must attack the environmental causes of these diseases with the same vigour that they have attacked the problem of water and sewerage and cross infection during the latter part of the nineteenth century.

There seems today to be a society to be an acceptance of smoking, of obesity, of motor traffic accidents, and inadequate housing as essential elements of an advanced society despite a clear indication that these factors are killing many of the people who live in this society. A study of this book gives hope that just as our grandfathers solved such apparently insuperable problems as the lack of water and sewerage, we can solve these problems of our own society which are largely the result of our own conception.

The American Public Health Association is to be congratulated upon the whole of this series of monographs. Perhaps such a series could be established within the United Kingdom for we do have some of the most reliable data available in the Western world. This book should be read by all sociologists and by all public health administrators who are interested in quantifying their work.

Hubert Campbell

Gad's Blueprints: A sociological study of three utopian sects by John McKelvie Whitworth. Routledge & Kegan Paul, £7.50. ISBN 0 7100 8002 6.

Gad's Blueprints is John Whitworth's felicitous title for his sociological account of the Shakers, the Oneida community and the Bruderhof. All three utopian sects saw themselves as having a special mission from God to set up encampments in the wastelands of the secular world. From here they would show forth the shape which the Kingdom of the Saints would take when God finally perfected His righteous creation. They were committed to a life of celibacy, communal living and manual labour, far from the distractions of the world. The Shakers believed they were prefigurations of the final social order. It may be significant that all three found a final hospitable resting place in North America, that home of respectable secularism, although the Shakers began among the swamplands of nineteenth century Lancashire and the Bruderhof in Germany after the First World War, only arriving in the United States via Switzerland, England and Paraguay.

The analysis is very much in the tradition pioneered by Max Weber and it is good to have full and scholarly illustrations of the utopian sub-category to add to the rich library of sectarian and millennial studies, not least because the history of the counter-culture of the 1960s has drawn up some fascinating parallels to Dr Whitworth's study. The Bruderhof believe in the natural immortality of man and the corrupting effect of over-developed society; Dr Whitworth neither joins in the attempt to compare his material with that on modern communism nor indeed there is very little comparison or abstract theorizing in his book—but his careful and subtle analyses of the social processes causing death to whites, blacks or Japanese and Chinese, are quite different.

Portrait of a Greek Mountain Village by Juliet de Boulay. Oxford University Press, £5.00. ISBN 0 19 623186 5.

Dr de Boulay has written an unfashionable but valuable book which should in due course become a minor anthropological classic. Between 1966 and 1968 she studied a small Euboean village which did not have a road and so still depended on human and animal labour for its economic life, while the rest of the island was moving through stages of mechanized agriculture. She chose to study a "backward" village feeling demographic collapse, a place where "tradition" was, in a modified form, still available for inspection. Students of Greek society will be glad she did not yield to the sirens of social change.

Most of her insights were gathered through the world of women, but she does not present a fragmented social portrait. On the contrary we are given a systematic account of the integration of values with kinship and sex roles, and of the individual household with the village community. To say integration is not to imply an absence of tension and conflict: life in Anafiot village is shot through with quarrels, lies and antagonisms of all kinds but Dr de Boulay manages to show that these are part of the village structure, and that the village is a dynamic way due to the cohesiveness of this particular village. The "portrait" of the life is not a description of the author's life in a Greek village, or recollections of particular villagers, but an anthropological analysis of the social structure of the village calculated to throw light on what is common to Greek villages in general. Written in excellent Oxford prose, with no technical jargon to baffle the lay reader, it is primarily a scholarly work, contributing to the meagre literature on Greek villages.

Dr de Boulay begins to a school of British anthropologists who are deliberately, explicitly about certain technical problems about the relation between actions, values and beliefs more by oblique but skilful allusion than by head-on attack. This will irritate theoreticians of several schools, but is fully justified by the quality of her observations and insights. There is however one difficulty which springs from this attitude: the book is so carefully constructed and the abstract elements of the argument so deftly dovetailed from one section to another that it would prove difficult in the extreme to reanalyse the ethnography.

The author explores the tension between the public and private realms of the villagers, as well as the tension between the ideal pattern of life and the actual pattern of life. She explores the moral ambiguities of a daily life in which all resources are scarce. She argues convincingly that "modernity" has produced the collapse of the traditional village: the older villagers value their dying way of life, but are hard-headed enough to see that they must give their children a start in the runaway world where the road begins.

Moreover his study is a model of carefulness: the author never conceals lacunae of evidence or risks undocumented generalization or dresses up speculation in convenient sociological vocabulary—and these are considerable virtues.

The three communities all had charismatic founders, and the crucial role of the personality, ideology and political resourcefulness of the leader is well brought out. Weber's famous discussion of the problems involved in the routinization of charisma after the passing of the founder receives further amplification. The Shakers were half successful in the process, though leadership crises and schisms were a constant element in the decline of the group. The Oneida community quickly disbanded itself when the charisma of the original leader almost flickered out with old age. The Bruderhof nearly destroyed themselves in the purges and faction which followed the death of the founder.

The content of the three utopian theologies is very different. The Shakers saw sexuality as the source of all evil, and so set up wholly celibate communities containing both sexes and organized into "family" groups pursuing a simple, puritan but otherwise ordinary secular life. The Oneida community lived according to the belief that their own salvation had already been effected by Christ's secret second coming could be perfect themselves and inaugurate the perfect community of non-egoistic communism. The Bruderhof believe in the natural immortality of man and the corrupting effect of over-developed society; their aim is childlike simplicity and, again, non-egoistic communism as the source of communal perfection and spiritual power.

In all three cases the communal life was expected to come about by the high value placed on simplicity, and of the need to set themselves apart from the fallen masses was an attempt at royal sufficiency on the geographical map.

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## BOOKS

### Shall they inherit the earth?



Circular dance "The gift of love", c. 1865; picture from "The Graphic", London, May 1970. © The Mansell Collection.

gians of settled society. Subsistence agriculture got off to a shaky start—particularly in the case of the urban, middle-class founders of the Bruderhof—and was ultimately supplemented by "folk" crafts. The Shakers became famous for their prototype "habitat" furniture, the Oneida community by an odd historical accident for rubber trunks, and the Bruderhof for children's wooden toys. The good workmanship of devoted utopians made all three very saleable items on the high Victorian market.

Relations with the wicked world were the source of major problems for these communities as indeed they have consistently proved to be for sects of all types. But utopians like their conventional brothers are peculiarly tempted to have dealings with the unregenerate who are expected, come the millennium, to recognize the common social arrangements as in fact God's blueprint. Missionary work, evangelistic end/or literary is therefore part of their raison d'être. These sects consequently had to contend with the inevitable danger of missionary activity: the Bruderhof, after a traumatic purge in the 1960s, are currently in a phase of intense controversy, while the two nineteenth-century groups have hounded their own decline by opting for reformist policies. They became prepared to co-operate in a spirit of Fabian millennialism with a wide variety of "progressive" causes from slave emancipation to secularism. The utopianism, so far as its distinctive ideological identity of the sect was eventually eroded. John Noyes, the founder of the Oneida community, indeed went so far in this direction that he regarded all facets of modern knowledge as part of God's plan of salvation. For instance he had great hopes of "Social Science," which is really the science of righteousness—a perspective, incidentally which he shared with the utopian founder of sociology, August Comte.

It has often been argued that sects adopt either a puritan or a licentious logic: perfection may entail either perfect control or the belief that, being perfect, anything the saved sectarian does is *ipso facto* perfect too. The bifurcation is by no means pure in these three cases, but if one takes attitudes in sexuality as the classical yardstick this apparently ranges the Shakers (wholly celibate) and the Bruderhof (strictly monogamous and

apposed to contraception) on the puritan side and the Oneida community following Noyes's institution of complex marriage and male continence for coitus reservatus on the licentious side. A closer scrutiny, however, indicates that the more fundamental factor which links all three groups is the attempt to eliminate egoistic individualism not only in sexuality but generally. Sexual activity in the Bruderhof, and even among the island-breaking Oneida community is emphatically not intended as the source of egoistic pleasure or special possessiveness: in the latter case in particular, complex marriage—with pairings strictly programmed by Noyes—was intended to widen and strengthen communal ties and to counter exclusiveness and selfish privacy.

Indeed if one wants to find the key to commune experience it may very well lie in the nature of social control in this special setting, and above all in the expedients evolved in that privacy and egoism. In its Whitehurst's utopianism, formally egalitarian ideology co-existed with hierarchical authorities in whom wide powers of sanction and censorship were vested. The charismatic founder, especially in the case of the Oneida community, had powers like short of totalitarianism. Physical and psychic privacy were institutionally extirpated, and obedience and humility extolled as the manifestations of perfection and salvation. There are quiet but unmistakable indications that John Whitworth's utopianism, though it seems to find even the modified social control applied to visitors fairly oppressive during his field-work with the Bruderhof.

This book is essential reading for students of sectarianism and commune experiments, and anyone who wants to understand the nature of social control will find a mass of illuminating detail in this fascinating and thorough study.

Bernice Martin

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## BOOKS

## Animal ways

Animal Nature and Human Nature  
by W. H. Thorpe  
Methuen, £2.50  
ISBN 0 16 76310 3

Professor Thorpe, a scientist with a lifelong research concern with animal behaviour, surveys his field in the first section of the book before considering, in a second section, how plausibly human propensities can be seen as extensions of those of other animals. He arrives at some startling claims. He proposes, for instance, that the aesthetic domain, far from emerging only with man himself during evolution, is present in primitive form in such things as the patterns in butterfly wings developed in response to the perceptions of predators, or the apparently timeless elaboration of lichening in late summer.

Thorpe's religious convictions, which I would classify as "syndicalist Christian", are evident throughout and are made explicit in the final chapters. Many scientists may be likely to react to these convictions with irritation despite the empirical ground he covers. Yet at the end of the book one feels an impudently arrogant attempt to reach a deeper level of the reader's sensibility than is usually eluded by scientists. Doubtless for many this will be the best reason not to read further, but for others I hope that it will persuade them to look closer.

After a second reading, I recommend the book precisely because of the salutary questioning of assumptions that it demands when treated fairly. There is an implicit cosmology—positivism or in Thorpe's words "scientific monism"—that dominates our times, not because the observations of science itself make it necessary, but more I suspect because of the economic and political forces that have shaped science in our society. Thorpe tries to dislodge the typical scientist from a too complacent acceptance of that cosmology.

The first section on animal behaviour criticises naïve extrapolations from animals to men with respect to, say, the necessity of overt aggression, territory-holding, or homosexual effects upon behaviour. These extrapolations are enormously damaging to an adequate image of man, even though their authors may subsequently claim that only analogies were intended. There do seem to be some lapses in this critical attitude however. Unless I grossly misunderstand him, Thorpe is unprincipled in the use of the word "analogy" to justify his own extrapolations, by means of drugs and other measures, the more statisticians of human personality that he exists.

The second section begins by surveying that frustrating territory of conjecture, the actual biology and ecology of the evolutionary emergence of man. One provocative thought occurs to me: what is the most of what is distinctive in man's anatomy (including his brain and his unique competences), is largely the result of culture, rather than the culture emerging after man had evolved under mysterious biological selective pressures as more traditional theories would suppose.

Thorpe makes a plea that although reductionism is perhaps the only possible research strategy in biology, it should never become the philosophy, as it then assumes most unfortunate reality-defining (ideological) properties. Certainly it is because of the hegemony of crude reductionism in biology, especially since the 1950s, that the reductionist cases of molecular biology, that we find in terminological transfers from genetics, biochemistry or ethology pass for near-universal explanations in whole biological and human spheres where real understanding has hardly been begun. But if reductionism is to be useful in biology, it must be accompanied by a sophisticated reductionism can be useful.

Certain lines from later chapters have a haunting effect. "Whether given or little fostered by religion, it will soon be possessed by it. Thorpe is trying to pull out little finger through the critical doorway. Although the alternatives are not starkly added it is clear for a reductionist of the imbalance that no Darwinism has caused in our outlook.



A picture of a queen bee, with the head enlarged; taken from "The World of the Wasp" by Jay Speczynski, published by Muller at £3.95.

## Creature comforts

Environment  
by K. Schmidt-Nielsen  
Cambridge University Press, £7.25  
ISBN 0 521 20551 4

In pre-Darwinian days we revered the creature, new it is the creature we admire. Both sentiments are philosophically suspect, but the second is the more amiable and scientifically a little nearer to the mark. For animals certainly appear ingenious in solving their problems, and if they cannot exactly do as we do, they are not exactly doing as we do. The second law of thermodynamics they do at least make it look rather unattractive. They twist physical law to extraordinary advantage. Schmidt-Nielsen's book makes very clear.

There are two distinct directions from which animal physiology can be approached. They differ in the multiplicity of the processes which they take as their starting point. Many of the fundamental problems of cellular inheritance and cellular organization were solved, one might say, once and for all, more than 1,500 million years ago. Many cell physiologists would not be seriously perturbed, other than by being a little short of oxygen, if they were translated to pre-Cambrian times, granted the pre-Precambrian funding of their laboratory and its services. What has happened since has been the exploitation of fundamental devices to allow animals to thrive in varied and changing environments.

The ways in which animals have met these challenges is what con-

cerns Schmidt-Nielsen in this text. Thus fishes are visibly adapted in shape to life in water. But water can be very cold or pretty hot, rich or poor in oxygen, and they almost purr. Near the surface the pressure is little more than that of the atmosphere above, at depths it can be very many times as great. It is the business of a fish to cope with a particular range of environments in such a way that the basic requirements of its component cells and tissues are met. Different fishes have found different solutions—but all commend respect.

Schmidt-Nielsen starts from a naturalist's interest in how animals cope and proceeds from there. The book is a rather admirable elementary introduction to animal physiology. He writes for the student reader, not for his colleagues. His enthusiasm for his material is present, but not obtrusive, and there is a certain philosophy in his approach. Others would have offered a different mix, with different emphases. The most striking omission is the perhaps reduction and its endocrinology. Never mind. What is done is done so well that it would be churlish to complain.

The illustrations are generally pleasing and helpful, but occasionally they leave one puzzled. Which dots in Figure 4.8 represent which species? One suspects that not even the author could be sure. Other figures are in the same way, but not so obviously.

D. R. Newth

## Life, form and structure

The Morphology of Angiosperms: The Structure and Evolution of Flowering Plants  
by K. R. Sporne  
Hutchinson, £3.50 and £1.95  
ISBN 0 09 120610 3 and 921611 1

Morphology is the science of the form and structure of living organisms. The word metamorphosis, used by Goethe in his seminal poem and essay, *Metamorphosis der Pflanze*, aptly characterizes the subject, though nowadays we add an evolutionary dimension to the definition of what is now a vast subject and mentioning some of the more interesting recent contributions. The text proceeds systematically from embryology and apical meristems, through the vegetative and flowering organs to the seeds. The level is that of an advanced undergraduate course. There is little room for discussion of the functional aspects of morphology and the word morphogenesis does not occur in the index.

leave something to be desired, considering as they do of small and not very attractive diagrams; but there is a useful bibliography.

The question of the phylogeny of the angiosperms is one which the author has himself studied for many years. The last chapter contains a detailed exposition of his views, especially his demonstration of significant character correlations in flowering plant families, and his inferences about which group of characters is the more primitive. As far as they go, his conclusions are sound, and they enable him to indicate some likely evolutionary trends; but the limitations of the fossil evidence do not permit him to push his deductions much further back than the Eocene period. It would have been interesting to have had his views on the earlier history of the angiosperms and on the evolutionary and biological forces which were involved in the origin of the group. Such a discussion, necessarily speculative, would need to draw on ideas other than morphological; but informed speculation is needed to stimulate investigation of what is still so obscure a part of evolutionary history. There is little room for discussion of the functional aspects of morphology and the word morphogenesis does not occur in the index.

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## Plant growth

The Shoot Apex and Leaf Growth: A Study in Quantitative Biology  
by R. F. W. Williams  
Cambridge University Press, £6.50  
ISBN 0 521 20453 4

In the words of the author this book "has to do, not as much with the integration of physiological processes as with the prior need for quantitative description". To record the critical events of developmental biology in terms of quantity and rate is not easy, especially when the parts studied are exceedingly small and their relationships complex, as in the shoot apex. R. F. Williams of the Division of Plant Industry, Commonwealth Scientific and Industrial Research Organization (CSIRO), Canberra, has nevertheless succeeded in bringing together in this book not only quantitative descriptions of the shoot apex but also has placed these appropriately in the broader field of plant growth.

About half of the book is devoted to a penetrating analysis of the morphology of the shoot apex of selected species. In this respect it is monographic in character, much of the information is presented for the first time, and most of it stems from the research of the author. Indeed the book has a pronounced personal stamp, and is presented as a belated tribute to E. K. Purdie (one of the first in Australia to interpret agricultural practices in terms of plant physiological processes).

Accurate quantitative descriptions of the shoot apex are made possible by the use of serial reconstruction which permits the examination of volumes of least primordia. Details of this procedure are given in the appendix. The contrasting types of shoot apex described include those of wheat, clover, flax, aculeatus (an example of the decussate condition), tobacco, cauliflower and lupin (various spiral systems) and fig (highly packed spiral).

Much primary information about the vegetative shoot apices of these plants is given (there are numerous three-dimensional diagrams), the emphasis throughout being on morphology rather than anatomy.

Phyllotaxis (leaf arrangement) is interestingly covered; the phyllotactic systems described include a range of types of the ubiquitous Fibonacci spiral. Of special value here is the exposition of the development of geometrical models in the investigation of phyllotaxis, and the discussion of the irrational Fibonacci angle as a possible "ideal angle". In the interpretation of phyllotaxis the author addresses the significance of mechanical as well as chemical gradients, and claims strongly that physical constraint is an important determinant in plant growth and development.

When planned, the book was intended to include a critical survey of growth analysis, but this field was fully covered in 1972 by G. C. Evans (*The Quantitative Analysis of Plant Growth*). Nevertheless, the present book contains an admirable account of relative growth rate to which the usefulness of the concept is made clear with examples ranging from higher plants to viruses.

This book is full of information of significance to developmental and theoretical biologists and those concerned with crop physiology. At many points the potentially turgid text is enlivened by challenging queries and the inclusion of apt comments on the work of others.

A. J. Willis

## Bio-medical

Radioactivity and the Life Sciences  
by D. J. Horsey  
Methuen Educational, £1.30  
ISBN 0 423 86350 9

It is barely 80 years ago that Becquerel discovered that some elements were radioactive. From a study of their decay pathways it was recognized that an element may have several different isotopes. Although some of the earliest applications used natural radioisotopes (Heavy used lead-212 in 1923), most scientific and medical applications use artificially produced isotopes. It needed the stimulus of the Second World War and the development of nuclear reactors for such isotopes to become readily available in the 1940s.

Radioactive labelled compounds are used extensively in biological and medical studies. Dr Horsey tries to show their use (and misuse) for students preparing for entry to university or other advanced studies. Some basic concepts and principles of radioactivity are presented in the introduction, followed by a discussion of radiation hazards and health risks. They are presented historically, showing how modern controls have evolved. Dr Horsey illustrates some of the earlier hazards by a horrifying patent medicine advertisement of about 1915 for radium water. This suggests that some users may have consumed up to 100 microCurie of radium a year.

The two main sections of the book are concerned with medical applications of radioisotopes and their use in biological studies. Dr Horsey is obviously more familiar with the former. He rightly highlights the radiation problems involved in the use of iodine-131, but he does not explain why its use in the study of renal function is acceptable, whereas for visually handicapped children the use of radium-226 is far better. In vitro assay techniques are considered but without mention of their advantage over in vivo methods, namely that they obviate any contact between the patient and the radiolabelled agent.

The chapter on biological applications presents a number of classical experiments but the reader is left with an incomplete account ending in the mid-1960s. Although the liquid scintillation counter is mentioned, it is hardly apparent that most modern studies involve its use. Radioisotope dating is described, but only by Libby's original method. There is no mention of the current techniques where the sample is converted into benzene which is used as the scintillant solvent.

The brief mention of liquid scintillation counting considers how tritium and phosphorus-32 may be distinguished. By considering tritium and carbon-14 Dr Horsey could have introduced one of the most widely-used techniques for the study of biosynthetic pathways. The study of double-labelled tritium action may be applied to the study of double-labelled, optically-active precursors where there is additional clarity due to labelling of a prochiral centre.

This is a good historical introduction to the uses of radioisotopes in the life sciences. Although there are obvious links between the biological and medical topics selected, it might have been better concentrated on the applied aspects only.

G. P. Moss

## This week's reviewers

D. Bannister is head of the psychology department at Bexley Hospital and visiting professor at the University of Surrey. He is co-author of "The Evaluation of Personal Constructs" and "Inquiring Man". Michael Elman is research officer in the department of applied economics at Cambridge and is director of studies in economics at Fitzwilliam College.

Paul Herchenbach lectures to social anthropology at the School of African and Asian Studies at the University of Sussex. L. C. Knighton retired in 1973 from the King Edward VII Chair of

politics at the London School of Economics and has had recently published "The Greek Gift" in Italy. Harry McGurk is lecturer in developmental psychology at the University of Surrey and has written many papers on early perceptual development; his book "Growing and Changing" will be published later this year.

Bernice Martin lectures in sociology at Bedford College, London. D. R. Newth is Regius professor of theology at the University of Glasgow. D. H. Wilmshurst, head of botany at the University of Manchester, is

## Coffee studies as a model for academic rigour in physical education

Human Movement is the invention and the current enthusiasm of the physical educationists. In and about the country they are putting it forward to academic boards in colleges of education, polytechnics and universities as a credible subject of degree study. Already some human movement degrees have been introduced. Many more are likely to follow.

Interested observers may feel apprehension on two counts. What will be the value of these degrees? And what will be their effect upon physical education? It has been claimed that human movement studies seek "to illuminate the phenomenon of human movement". In practice nothing so universal is or could be achieved.

Human movement programmes are found to include within their scope only certain terms of human movement—broadly, those which appear in physical education. The great mass of skilled movement involved in constructive manipulation would, indeed, be intractable material for study as a phenomenon in its own right. It has little or no significance apart from the other associated factors in the constructive act—notably the material being worked.

The significant phenomenon of the potter's wheel is not the movement of the potter's hands but the growth of the pot. This depends upon a chain of reactions between the clay and the potter's skill and imagination, his taste and his experience. His hands are a link in the chain. To study his movements out of context would be meaningless. To study them in context would require a knowledge of the art.

Even with its pragmatically limited range of subject-matter—locomotion, posture, gesture, athletic exercise, play movements and dance—human movement studies is too diffuse to constitute a discipline. To explore the mechanical, psychological, social and aesthetic realms of knowledge which illuminate these activities would involve several disciplines. It is not a discipline in its own right.

Of course there are, and have been for many years, subjects within the field—subjects such as exercise physiology, biomechanics and various aspects of applied psychology and sociology—which have been useful to students of medicine, ergonomics, physiotherapy and dance as well as students of physical education. But this is not the same thing as a

course in human movement. Surely such a course, to deserve the name, would cover the whole ground or a significantly large part of it.

So far as physical education studies are concerned, the truth is that they have always undertaken human movement studies without using the name. The spectrum of studies was formerly not as wide as now but the exercise physiology and kinesiology (mainly) which figured in the training of physical educationists from early times are the basis from which the ideas of human movement studies have developed. Physical education, now an accepted degree subject, has always been one of those subjects which combine a field of knowledge with a field of competence. Will human movement develop a field of competence distinct from physical education? If so, what?

There would, in any case, be an error in considering human movement studies as the exclusive field of knowledge upon which the professional activity of physical education rests. The error would arise from considering physical education as concerned only with movement—physical activity. This is not true. Fundamentally physical education is concerned not only with human movement but with human nature. Football, cricket, athletics, dancing, swimming are not just forms of human movement; they are the activities of persons. They involve thought and feeling as well as movement. The physical educationist needs disciplines such as general psychology and social philosophy as well as these illuminating human movement.

The problem for physical educationists is to build a structure of supporting studies on the basis of professional utility and professional culture. If it is decided to designate human movement as the core of human movement studies, no harm will be done. But here will be done if physical education appears to depend too much on human movement studies, or, worse still, is swallowed up in them. The medical profession has seen to it that medical science and medicine itself have remained closely integrated, particularly at undergraduate level. The title of the integrated course is medicine. Physical educationists might be wise to follow their example.

R. E. Morgan

Mr Morgan recently retired as Director of Physical Education at Leeds University

## Proposal for a confederation of teachers' associations

I propose the setting up of a new kind of organization for teachers in higher education which will have the powers of a trade union as well as the status of a professional association, and which will cut across the various subject associations, joining the existing teachers' associations. The teachers' associations involved are the Association of University Teachers (AUT), the Association of Polytechnic Teachers (APT), the Association of Teachers in Colleges and Departments of Education (ATCHE), the National Society for Art Education (NSAE), and the Association of Teachers in Technical Institutions (ATTI).

There are other organizations representing college principals, and the Association of Scientific, Technical and Managerial Staffs (ASTMS), predominantly non-teaching central, has a footing in the Scottish Central Institutions. The AUT and APT represent teachers wholly in higher education. The NSAE also has members in APT and ATCHE, and the ATT is in the bulk of its membership in further education and it is only through an historical accident that it retains members in the polytechnics.

There is much discussion at present about a proposal for a merger of APT and ATCHE, and in this respect I would strongly advise members of the ATCHE, or whatever replaces it, to consider the implications most carefully, as such a merger will result in the loss of identity.

Recently there have been suggestions made by members of the APT and the ATCHE for a merger between the two organizations into an Association of Teachers in Higher Education (ATHE). This would produce a larger organization, it is true, but it is not a union alone which gives strength, and there are misgivings on both sides about the chief issue on which two associations, each of which has its own specific area. In the present educational climate, however, I think it essential that there should be a body which speaks for the teachers in higher education as a whole, and it is in this end that I propose the setting up of a confederation of teachers' associations (CTHE).

The confederation would consist of a grouping of teachers' associations. Each member would belong to its particular association (APT, ATCHE, or otherwise), but would be represented on the confederation. The confederation would be non-political. A paper setting out the ideas in this article will be presented to a National Council meeting of the APT in June.

Eric Zucker

The author lectures in physics at North London Polytechnic. The views expressed are his own.

## Open University programmes June 7 to 13

## Saturday June 7

- 12.30 Urban development: ethnic and racial patterns (12.30-1.00)
- 1.00-1.30 The history of architecture and design (1.00-1.30)
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# Classified Advertisements

Index to Appointments Vacant, Wanted and other classifications

## Appointments vacant

Universities  
Fellowships & Studentships  
Polytechnics  
Technical Colleges  
Colleges and Institutes of Technology  
Colleges of Education  
Colleges of Further Education

## Colleges and Departments of Art

Administration  
Overseas  
Government  
Industry  
Adult Education  
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## Appointments wanted

Other classifications  
Announcements  
Exhibitions  
For Sale and Wanted  
Courses  
Holidays and Accommodation  
Typing and Duplicating

## Universities

AN FORAS NAISÍONTA UM AOIDEACHAS LUIMNEACH THE NATIONAL INSTITUTE FOR HIGHER EDUCATION LIMERICK

First students were admitted to Pilot-Phase degree and diploma programmes in 1972. The first phase of development within recently constructed facilities on the 120-acre riverside campus is now under way and staff are being recruited to develop and implement a variety of programmes ranging from specialist short courses to post-graduate. A modular credit system, a co-operative education programme and an interdisciplinary study system have been introduced. Those interested in educational innovation and prepared to contribute enthusiastically to the development of the campus are invited to apply.

## DEPARTMENT OF EUROPEAN STUDIES LECTURER/ASSISTANT LECTURER IN FRENCH STUDIES (Re-advertisement)

Besides holding a good honours degree or equivalent candidate should ideally be fluent in French, experienced in the use of modern language-teaching methods at various levels, have a special interest in the field of contemporary French Studies and be interested in the development of interdisciplinary courses within the European Studies field.

Previous applicants for this post will be automatically reconsidered.

**SALARY:** With the implementation of Phase 1 of the current national wage agreement the post will attract the following approximate salary range.

**LECTURER:** £4,722-£5,138

**ASSISTANT LECTURER:** £3,642-£4,398

Plus £100 p.a. marriage, £70 p.a. child allowance and other benefits.

Application material available from Personnel Office, National Institute for Higher Education, Limerick, should be completed and returned by Friday, June 27, 1975.

## TRINITY COLLEGE, CAMBRIDGE APPOINTMENT IN ENGLISH

Applications are invited for appointment to a College Lectureship or Assistant Lectureship in English, available in the first instance for three years from 1 October 1976 or a date to be determined. Women as well as men are eligible. A successful applicant may expect to be elected into a Fellowship of the College. Further particulars may be obtained from the Senior Tutor, Trinity College, Cambridge CB2 1TQ, to whom applications should be addressed together with a statement of qualifications and experience and the names of not more than three referees. The closing date for applications is 30 June 1975.

## LOUGHBOROUGH UNIVERSITY OF TECHNOLOGY

### CHEMISTRY

#### LECTURESHIPS

Applications are invited for the following vacancies available from 1 September 1975:

(a) CHEMIST specialising in analytical chemistry (15/11/75). Salary: £4,000 p.a. plus benefits.

(b) CHEMIST specialising in organic chemistry (15/11/75). Salary: £4,000 p.a. plus benefits.

(c) CHEMIST specialising in physical chemistry (15/11/75). Salary: £4,000 p.a. plus benefits.

(d) CHEMIST specialising in inorganic chemistry (15/11/75). Salary: £4,000 p.a. plus benefits.

(e) CHEMIST specialising in polymer chemistry (15/11/75). Salary: £4,000 p.a. plus benefits.

(f) CHEMIST specialising in materials chemistry (15/11/75). Salary: £4,000 p.a. plus benefits.

(g) CHEMIST specialising in environmental chemistry (15/11/75). Salary: £4,000 p.a. plus benefits.

(h) CHEMIST specialising in food chemistry (15/11/75). Salary: £4,000 p.a. plus benefits.

(i) CHEMIST specialising in textile chemistry (15/11/75). Salary: £4,000 p.a. plus benefits.

(j) CHEMIST specialising in pharmaceutical chemistry (15/11/75). Salary: £4,000 p.a. plus benefits.

(k) CHEMIST specialising in forensic chemistry (15/11/75). Salary: £4,000 p.a. plus benefits.

(l) CHEMIST specialising in clinical chemistry (15/11/75). Salary: £4,000 p.a. plus benefits.

(m) CHEMIST specialising in forensic toxicology (15/11/75). Salary: £4,000 p.a. plus benefits.

(n) CHEMIST specialising in forensic anthropology (15/11/75). Salary: £4,000 p.a. plus benefits.

(o) CHEMIST specialising in forensic odontology (15/11/75). Salary: £4,000 p.a. plus benefits.

(p) CHEMIST specialising in forensic entomology (15/11/75). Salary: £4,000 p.a. plus benefits.

(q) CHEMIST specialising in forensic geology (15/11/75). Salary: £4,000 p.a. plus benefits.

(r) CHEMIST specialising in forensic archaeology (15/11/75). Salary: £4,000 p.a. plus benefits.

(s) CHEMIST specialising in forensic palaeontology (15/11/75). Salary: £4,000 p.a. plus benefits.

(t) CHEMIST specialising in forensic numismatics (15/11/75). Salary: £4,000 p.a. plus benefits.

(u) CHEMIST specialising in forensic epigraphy (15/11/75). Salary: £4,000 p.a. plus benefits.

(v) CHEMIST specialising in forensic linguistics (15/11/75). Salary: £4,000 p.a. plus benefits.

(w) CHEMIST specialising in forensic psychology (15/11/75). Salary: £4,000 p.a. plus benefits.

(x) CHEMIST specialising in forensic psychiatry (15/11/75). Salary: £4,000 p.a. plus benefits.

(y) CHEMIST specialising in forensic sociology (15/11/75). Salary: £4,000 p.a. plus benefits.

(z) CHEMIST specialising in forensic anthropology (15/11/75). Salary: £4,000 p.a. plus benefits.

## LOUGHBOROUGH UNIVERSITY OF TECHNOLOGY

### Lecturer in Engineering Mathematics

Applications are invited for the post of LECTURER in the Department of Engineering Mathematics. Candidates should be engineers who have experience in the application and use of mathematical techniques in industrial problems. The successful applicant will teach mathematics to engineering students and pursue research in advanced engineering mathematics. Salary (under scale) £2,118 p.a. plus benefits. Possibility of promotion to Assistant Registrar (Establishment) £2,118 p.a. plus benefits. The department has vacancies for RESEARCH STUDENTS in advanced engineering mathematics. Graduates should write to the head of department, Loughborough University, Loughborough, Leicestershire LE11 3TU.

## ABERYSTWYTH THE UNIVERSITY COLLEGE OF WALES

### TUTOR IN GERMAN AND SWEDISH

Applications are invited for the above two posts. The successful applicant will be responsible for the teaching of German and Swedish to students of the University. Salary: £2,118 p.a. plus benefits. Closing date: 30 June.

## ST. ANDREWS THE UNIVERSITY DEPARTMENT OF MEDIEVAL HISTORY

Applications are invited for the post of LECTURER in the Department of Medieval History. The successful applicant will be responsible for the teaching of Medieval History to students of the University. Salary: £2,118 p.a. plus benefits. Closing date: 30 June.

## AUSTRALIA LA TROBE UNIVERSITY

### LECTURER IN BOTANY

Applications are invited for the post of LECTURER in the Department of Botany. The successful applicant will be responsible for the teaching of Botany to students of the University. Salary: £2,118 p.a. plus benefits. Closing date: 30 June.

## THE UNIVERSITY OF SALFORD

### New Interdepartmental Multi-Disciplinary

#### M.Sc Course

##### IN UNDERWATER SCIENCE AND TECHNOLOGY

The topic is treated as a multi-disciplinary scientific discipline which is structured to support and stimulate applications in many areas of engineering, biology and cosmography. The course contains the following optional modules which may be taken as short courses:

- Bio-environmental aspects of underwater activities
- The chemistry of underwater technology
- Flow and transport phenomena in complex systems
- Fluid Mechanics and propulsion
- Underwater acoustics
- Underwater properties of water

There is a compulsory core of basic subjects including: Oceanic Waves and Currents, Economic geography of Continental Shelves, Introduction to relevant Environmental Biology.

The first term and summer are devoted to a research project in the field of student's interest.

Applications are invited for the post of LECTURER in the Department of Underwater Science and Technology. The successful applicant will be responsible for the teaching of Underwater Science and Technology to students of the University. Salary: £2,118 p.a. plus benefits. Closing date: 30 June.

Further details from: The Registrar, University of Salford, Salford M6 4WT or Tel. 051-754 8543.

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## AUSTRALIA THE AUSTRALIAN NATIONAL UNIVERSITY

### SENIOR LIBRARIAN, GRADE 1

#### IN THE SCIENCE LIBRARY

Applications are invited for the post of SENIOR LIBRARIAN in the Science Library. The successful applicant will be responsible for the management of the Science Library. Salary: £2,118 p.a. plus benefits. Closing date: 30 June.

Further details from: The Registrar, Australian National University, Canberra ACT 2600.

Further details from: The Registrar, Australian National University, Canberra ACT 2600.

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## Universities continued

### AUSTRALIA

#### UNIVERSITY OF WESTERN AUSTRALIA

##### Perth

Applications are invited for the post of LECTURER in the Department of Mathematics. The successful applicant will be responsible for the teaching of Mathematics to students of the University. Salary: £2,118 p.a. plus benefits. Closing date: 30 June.

Further details from: The Registrar, University of Western Australia, Perth WA 6000.

Further details from: The Registrar, University of Western Australia, Perth WA 6000.

Further details from: The Registrar, University of Western Australia, Perth WA 6000.

Further details from: The Registrar, University of Western Australia, Perth WA 6000.

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### BIRMINGHAM

#### THE UNIVERSITY OF BIRMINGHAM

##### DEPARTMENT OF APPLIED PHYSIOLOGY

###### LECTURERS

Applications are invited for the post of LECTURER in the Department of Applied Physiology. The successful applicant will be responsible for the teaching of Applied Physiology to students of the University. Salary: £2,118 p.a. plus benefits. Closing date: 30 June.

Further details from: The Registrar, University of Birmingham, Birmingham B15 2TT.

Further details from: The Registrar, University of Birmingham, Birmingham B15 2TT.

Further details from: The Registrar, University of Birmingham, Birmingham B15 2TT.

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### CAMBRIDGE

#### NEW HALL

##### APPOINTMENT IN ENGLISH

###### TURKISH IN ENGLISH

Applications are invited for the post of LECTURER in the Department of English. The successful applicant will be responsible for the teaching of English to students of the University. Salary: £2,118 p.a. plus benefits. Closing date: 30 June.

Further details from: The Registrar, University of Cambridge, Cambridge CB2 3RQ.

Further details from: The Registrar, University of Cambridge, Cambridge CB2 3RQ.

Further details from: The Registrar, University of Cambridge, Cambridge CB2 3RQ.

Further details from: The Registrar, University of Cambridge, Cambridge CB2 3RQ.

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### GLASGOW

#### THE UNIVERSITY

##### TEMPORARY LECTURERS IN ARCHITECTURE

###### MECHANICAL

Applications are invited for the post of TEMPORARY LECTURER in the Department of Architecture. The successful applicant will be responsible for the teaching of Architecture to students of the University. Salary: £2,118 p.a. plus benefits. Closing date: 30 June.

Further details from: The Registrar, University of Glasgow, Glasgow G12 8QQ.

Further details from: The Registrar, University of Glasgow, Glasgow G12 8QQ.

Further details from: The Registrar, University of Glasgow, Glasgow G12 8QQ.

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